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Somewhere Else

by PAUL H. JOHNSTONE

ONE evening last summer, a group of us from the Department of Agriculture leaned over our dinner plates to hear the report of a New England county planning committee. One man displayed a series of colored maps showing the physical resources of the county. Here were the better soils, and there the poorer. Here in the valley were miles on miles of land given to timothy, and over there was some that with a little lime would grow good clover. Here were verdant pastures, and sugar bush, and wood lot; but there the rocky slopes were steep, with run-off like a roof, bare, fit only for forest.

Then another man rose to address us. A lot of the land that ought to be in forest, he told us, was being scratched at by farmers who could never make a go of it. The land simply was not good enough. Some had gone but many managed to remain, thanks to relief work or grants. Some country people who had taken city jobs during the boom days had returned to the farm after depression lay-offs. They were a public burden, not only to the extent of the direct and work relief they got but also because their residence in remote hill country frequently required roads to be kept clear and schools open that would not otherwise be needed. They stubbornly stayed on simply because they knew no other place to go. They should be rooted out—the use of this term implied

determination rather than malice—and resettled on land where a man had some chance to make a living.

There was not any good land going to waste in the county, however. It was all in farms already. Maybe a few farms could be bought from childless old people who were ready to retire. But there were not many such cases. Most of the people from the poor land would have to be taken care of *somewhere else*. The speaker was clear and incisive in his statement until he got to the point of the *somewhere else*; from there on he was vague.

A month after this incident several of us from the Department again listened to a report of county planning activities, this time at the other end of the country—in the San Joaquin Valley. On this occasion the whole story came from the county agent.

Too Many Farmers for the Land to Support?

There was no hope of increasing the amount of arable land in the county, he said. Any new water resources that might be developed should go to lands now insufficiently irrigated. The big operators on the richest land in the county had regarded as submarginal some of the poorer areas where the farms were smallest. The small farmers had somehow objected to this judgment; and their land was still classed as arable, although with deep misgiving. Most of the farms in the county were, in fact, too small to secure to their proprietors the standard of living that these proprietors considered proper. There were, in short, too many farmers.

Someone asked the county agent what the committee had recommended for those who would have to quit farming if the ideal units were realized. They would have to be taken care of somewhere else, he said—in the cities and towns in industry, on new lands opening up—in any case *somewhere else*.

Late in the summer we listened to the report of a land-use planning committee in a county on the Great Plains. It was not in the Dust Bowl, merely in that great region where they get "normal" rainfall but once in a dozen years. Once more we heard a competent appraisal of a county's resources. The county's wealth had been its grass—mixed prairie grasses in unbroken sod extending to every horizon. But the land had been plowed by settlers seeking a farm in the West, by others driven out of necessity to seek more return per acre than grazing would allow. Dry-land farming brought a few good crops, but drought risk was great, grasshoppers frequent, prices perennially low. With costs and uncertainties what they were, only the major operators survived. Blown out, dusted out, 'hoppered out, mortgaged out, tractored out—more than a quarter of the farmers of the county had gone since the depression and the drought. They had gone to stump ranches in Idaho, to follow the

harvests on the Pacific coast, to live off relatives, cringe on relief—or had just disappeared. And still there were too many farmers in the county. A great many were hanging on simply because there was no other place to go. A farm-management calculation was given estimating that farm units adequate to insure a desirable standard of living and good land use would have to be nearly twice the present county average.

Again Their Chance is "Somewhere Else"

Again the question of where the extra farmers could find a chance to make a living—and again the answer, *somewhere else*. Somewhere there must be irrigable lands that could be opened up for them. Not here, of course, but farther west perhaps. Or they might be taken care of in industry and in the cities.

Such is the story that, from Maine to California, comes out of county planning when it reaches a certain stage. There are few exceptions. Mostly, when the farm units are not too small, some of them are on land unfit for profitable cultivation.

County planning committees seem competent in their work of mapping the lands, and in determining what the best land-use program should be from a conservational point of view. But either expressly or by implication they indicate eventually that there are too many farmers and that the excess should be taken care of somewhere else. The crux of the problem is thus tacitly admitted but conscientiously ignored; and it is apparently hoped that by the magic words "somewhere else" the difficulties may be pushed beyond county lines where they will painlessly evaporate.

Unfortunately this easy disposal cannot work, for one county's "somewhere else" must be another county's headache. The migratory labor camps of California are, for instance, the unplanned "somewhere else" of Dust Bowl counties. The problem of surplus rural population is not the local problem of individual counties. It is, rather, a national problem that individual counties share. The rural population of the United States has always reproduced at a rate more than sufficient to maintain its numbers. It is still doing so. In the past the excess migrated either to frontier land or to commerce and industry in the cities. But the frontier has ceased to be, and urban industry has for a decade been unable to keep even its own workers fully employed. Therefore, the surplus of population in the agricultural counties of this Nation in a very real sense is the backlog of industrial underemployment and of the closing of the frontier.

Our Agricultural Resources Are Not Limitless

Assuming the continuance of our prevailing economic and social institutions, a population crisis has been inevitable for a long time. The tide of colonization that pioneered this continent and brought civilization to

the wilderness did not stop when the optimum degree of settlement had been reached. It overflowed.

We have already overreached our readily available agricultural resources. The National Resources Board estimated in 1935 that 454,200 (7.2 percent) of the farms in this country were submarginal and should be retired from cultivation.¹ According to estimates in the 1938 Yearbook of Agriculture, of the 415,000,000 acres under cultivation in 1935, only 339,000,000 acres were for the present "suitable for cultivation under best soil-conservation practices." The same authority also indicates that, assuming present price levels, good management and good conservation practices, there is the ultimate possibility of increasing the cultivable domain of the United States to 447,000,000 acres by clearing, by reclamation projects, and by plowing up arable pasture.² Estimates of the amount of new land that may be brought under cultivation by reclamation vary tremendously, however, and no coefficient of engineering and economic optimism has yet been discovered that, when applied, would produce agreement. The one thing of which we may be quite sure, however, is that for the most part the easiest and cheapest lands to reclaim have already been reclaimed, and that the commonest estimates of reclamation costs—from \$50 to \$100 per acre, and frequently reaching as high as \$200 or more—should not inspire an unmixed optimism concerning surplus rural population that is most teeming where it is most indigent.

Two facts seem clear. First, good land use would require less rather than more land under cultivation for the immediate future. Second, although we can expect an ultimate increase in the total area of cultivable land, that increase will come slowly and will be costly, and can never be large in proportion to the area already under the plow. The total picture of our present natural resources therefore offers no immediate hope for an agricultural "somewhere else."

The Permanency of Industrial Under-Employment

Furthermore, an agricultural expansion sufficient to care for the present surplus rural population—granted it were possible—would aggravate the difficulties already faced by the better-placed commercial farmers who under current conditions can still make a go of it.

Urban unemployment in its present proportions should be sufficient to kill any notion of immediate reliance upon an industrial "somewhere

¹ *Supplementary Report of the Land Planning Committee, National Resources Board. United States Government Printing Office, Washington, D. C., 1935. Vol. 1, pp. 48-50.*

² *Soils and Men, p. 94.*

else." There are no reliable unemployment statistics for the whole nation, principally because of the difficulties of defining "unemployment" in a way that is valid for gross statistical calculations. But estimates of the more calculable positive corollary—employment—indicate that despite increased urban population nonagricultural employment in the past decade has never attained the total it reached before the great depression.³ Large-scale industrial under-employment has become a more or less permanent phenomenon that must occupy a crucial place among the factors that rural planning should consider. Whether the estimate is eight million or twelve million out of work in the cities today, it does not alter the fact that urban industry is not prepared here and now to take care of the surplus rural population that in the past it was accustomed to absorb. The net migration from farm to city in the five years 1920-1924 was approximately 3,331,000 and from 1925 to 1929, 2,965,000. During the first five years of the thirties, however, this figure fell to 498,000.⁴

Although there are no longer any agricultural or industrial frontiers to absorb a surplus, the birth rate among rural people is so high that local communities cannot be expected with their prevailing institutions and attitudes to absorb into their local economy all of the young people that are coming and will come of working age. Among the white rural population the fertility ratio in 1930 was 707,⁵ whereas with present mortality rates and other conditions equal, 444 would be sufficient to maintain current population.⁶ Perhaps the most significant fact among the population statistics is the differential between rural and urban replacement ratios. While urban people do not reproduce fast enough to maintain their numbers, rural people reproduce much more rapidly than is necessary. With any ordinary set of assumptions, therefore, the obvious con-

³ 36,160,000 in 1929; in the decade of the thirties the figure ranged between a low of 27,775,000 in 1932 to 35,066,000 in 1937. Loring Wood, *Revised Estimates of Total Nonagricultural Employment* (1939). Mimeographed, United States Bureau of Labor Statistics, table I.

⁴ *Farm Population Estimates*, January 1, 1939. Processed, released June 22, 1939, by the Bureau of Agricultural Economics.

⁵ That is, an average of 707 children under 5 years per 1,000 women aged 20-44. The figures quoted here are from Carl C. Taylor and Conrad Taeuber, "Wanted: Population Adjustment, Too," in *Land Policy Review*, II, 2 (March-April 1939), p. 25.

⁶ It should be noted on the other hand that because of the very low birth rate of urban people, the average for the country as a whole is not sufficient to maintain a constant population over a long period. The total effect of this declining birth rate will not be fully apparent, however, for another generation. Our population will continue to grow until 1960 or 1970, and we are already in a period of disproportionately rapid increase in the numbers of people of working age.

clusion would be that the rural surplus, as always, should go to the city. But at this point the tremendous fact of urban unemployment intervenes, population surplus is backed up into rural areas, and new and aggravated agricultural problems develop.

An Industrial Revolution in Agriculture

Another consideration concerns the tendency of technological advance to displace farm labor. In a mechanical sense agriculture is today in the very midst of an industrial revolution. The march of machines does not follow perfectly the line of economic advantage; the mechanical age is a thing of the mind as well as of economics and engineering. Many a farmer who cannot use a tractor efficiently has bought one because that was the way to keep his son on the farm; many a farmer who could use a tractor very efficiently still uses horses simply because he loves them.

It is, of course, impossible to foretell the final results. Yet without doubt the first effects of the mechanical age in agriculture, now arriving, will be to increase still further the number of farmers without land, and of farm laborers without work. A committee of experts in the Department is now engaged in an attempt to calculate the probable effects of technological advance in agriculture. Although their estimates are not yet available, it is likely that, among other things, they will forecast the displacement of as many as two million farm persons by machines during the next ten years.

Such is the nature of the Nation-wide problems with which county planning committees must deal. Many of the most acute local problems are merely a phase of problems that cover the nation. There must, therefore, be thinking, *in the counties*, on a national scale. County planning committees must distinguish between problems that are purely local and problems that are merely the local manifestation of widely prevailing conditions. They must seek to find the relationship between local conditions and policies, and circumstances of a national scope over which the county has no more than a minute measure of control. And they must devise local programs and develop national policies in terms of this kind of analysis.

The Assumptions of County Planning

County planning must inevitably be based upon assumptions concerning national conditions and policies. Such general assumptions are in fact being employed now; but trouble arises because they are so frequently unconsidered and even unconscious. Calculations concerning the best disposition of a county's agricultural resources involve assumptions concerning the total national income: the best arrangement with a \$50,000,000,000 national income would by no means be the best arrangement

if the national income were 100 billions. The problems of an agricultural county are wholly different when urban industry is operating at capacity, with a growing market for labor, than when factories are closed down and the lines of unemployed are long.

The amount of money spent for food by urban industrial people varies according to their income. In the 10 years 1929-38, for example, while the estimated nonagricultural income in the United States varied from a high of 72 billion to a low of 42 billion dollars, retail food sales consistently amounted to from 21.2 percent to 22 percent of the nonagricultural income. The correlations between expenditures for meat and dairy products and industrial pay rolls, and between total value of farm marketings and total wages of industrial workers, are almost as perfect.⁷

The implications of such facts for county planning are enormous. If county planning experts would break down national figures of this kind so that people in agricultural counties could appreciate specifically the differences in the total income of their county that follow from variations in industrial pay rolls and nonagricultural income, they would be able to approach both local problems and national policies with a much wider understanding.

There is need for a broader social awareness. An "economic unit" ideal for an individual proprietor may not be economic in its effect upon farm labor, upon the farm population as a whole, or upon the entire nation. Calculation of what an economic unit should be has in the past been based almost exclusively upon the criterion of benefits to the proprietor. This is one way to calculate, but it is not the only way, nor is it necessarily the best. From another point of view, calculation of economic units might be based on the number of persons who have to make a living from agriculture and the amount of available agricultural resources. This should serve to suggest that there is another set of assumptions which with equal philosophical foundation and perhaps greater social validity could determine what constitutes an "economic unit."

Education and the Economic Slack

By their labor, farmers earn the right to electricity, bathtubs, automobiles, and education for their children as much as any group anywhere. It is the legitimate aspiration for these material decencies of modern life that lies behind conventional conceptions of the economic unit. The issue, however, is not whether farmers should have these things, but how. And in the effort to obtain them it would seem better sense to eliminate

⁷ L. H. Bean, P. H. Bollinger, and O. V. Wells, *Nonagricultural Income as a Measure of Domestic Demand* bulletin of the Agricultural Adjustment Administration, Government Printing Office, 1937. Especially table I, and charts V and VIII, and appendix A, figures 1 and 2.

the waste in idle factories and ten million unemployed than to eliminate little farmers who still are producing wealth and whose only deficiency is that they are not adequately rewarded.

County planning has two lines of attack. The first of these involves taking up slack in the economic mechanism for the benefit of those who should perhaps be employed in urban industry, but who for obvious reasons cannot be so employed. The second would be a process of education, both of and by the county planning committee, on the broad subject of the relationship of county problems to the problems of the nation as a whole, to the end that the county might in the future share intelligently in the formulation of broad national policies.

Many counties have the opportunity to inaugurate policies that can give immediate practical benefit to those farmers who might be labelled "surplus" without working against long-time programs or programs of broader scope. Farmers in the lower economic brackets in many areas can improve greatly their standard of living by increasing their subsistence practices.

As a practical fact this has been widely demonstrated by Farm Security Administration rural rehabilitation projects. As a farm doctrine, it has been enthusiastically advocated by private and public agencies for a long time. But it has not yet been sufficiently recognized as an expedient which, in a partial but practical sense, can relieve rural-population pressure, which frequently is so pressing simply because agriculture is so commercialized. In many parts of the country the encouragement of certain skills would enable many farmers to obtain by their own labor, without cash outlay, things they now need but cannot buy. There are places where more home processing of farm products would be a practical means of increasing the cash income, as well as of improving living standards.

Industry in Agricultural Counties

There are cases where an industrial refuge can be found right within agricultural counties. In many areas an opportunity exists for the development of small factories that will use local raw materials and employ local persons. Projects of this kind are frequently within local competence in respect both to planning and promotion, and they can turn an illusory and elusive *somewhere else* into a specific and practical reality.

Such measures, however, must be regarded more as temporary expedients than as long-time adjustments. It is doubtful that they can take care of more than the margin of the problem. The core of the agricultural problems of 2,700 counties remains in widely prevailing conditions that diverse individual programs in 2,700 separate counties cannot touch. A county in Vermont or Iowa or Idaho in its local action program cannot affect the course of production or of employment in a Youngstown steel

mill, yet the agricultural problems of those counties are vitally influenced by what goes on in Youngstown.

What the counties can do—in the long run the most important thing they can do—is to develop and spread a consciousness of the relationship between conditions on local farms and in the steel mills. When, out of this consciousness, 2,700 counties develop plans and policies that give intelligent attention to the Youngstown steel mill, and to all the other influences from somewhere else that affect conditions within the individual counties, county planning can be counted a success.

In the past it has been the rule for agricultural leaders and workers to see the relationship of agriculture to the rest of the national economy in the light of the traditional attitude that agriculture must prosper first, and the rest of the nation automatically will follow. It is easy for those who have special interests in agriculture to subscribe to such a one-sided view. But there are few facts coming out of our predominately industrial economy that can support it.⁸

The very circumstances that contradict the present application of this agricultural fundamentalism imply inevitably a vast readjustment of the economic and social institutions inherited from the time when that attitude was still valid. A readjustment is bound to come. The forces of change that have already been accumulating for so long will not forever be denied. The issue is not whether change will come, but who shall control the process and in the long run determine the outcome.

County planning is essentially a device, a technique. It can be a servant of provincialism and fail completely to face the broader issues of the day. But it can on the other hand be an ideal instrument for popular clarification of the real nature of agricultural problems, and for the indigenous development of national policies. If democratically formulated, national policies must grow out of a process of articulation and compromise of a multitude of locally formed opinions. But these locally formed opinions must be nation-wide in what they comprehend. Otherwise they will become a helpless and bewildering confusion of provincialisms that finally out of the crying need for reform will yield only to a regimentation imposed from above.

"Somewhere else," if left ignored and unknown except as a vague dumping ground for unwanted problems, can well become the source of violence and despotic dealing. But "somewhere else," if intelligently explored and tolerantly dealt with, can also be the place where our agricultural problems will find their best and most democratic solution.

⁸See, for instance, the now well-known essay by Joseph S. Davis, "Agricultural Fundamentalism," in *Economics, Sociology, and the Modern World, essays in honor of T. N. Carver*, edited by Norman E. Himes (Harvard University Press, 1935).

The Migrants

This article, the second of a series concerning migrant settlers in the Pacific coast region, deals with the Vale-Owyhee area in eastern Oregon, which represents one type of situation, namely, newly irrigated lands, into which migrants and others have gone. This article is confined largely to problems directly affecting settlers within the boundaries of individual projects, and does not attempt to appraise reclamation as a national policy nor to consider the larger aspects of competition between newly developed lands and older farming communities.

II. New Farms on Newly Irrigated Land

by CARL P. HEISIG

SETTLEMENT opportunities for farmers have been widespread in the past on irrigation developments in the West. Projects now under construction are offering additional opportunities and will continue to present possibilities for relocation of misplaced western farmers and for migrants from further east. The Black Canyon project in Idaho, the Roza division of the Yakima project and the Grand Coulee project in Washington, and the East Mesa unit of the Imperial Valley project in California are the more widely known examples of reclamation developments under construction that will be available for settlement during the relatively near future.

The reclamation of these arid lands and their development into irrigated farms involves many problems. Clearing the land, leveling and preparing the soil for planting require time. Desert lands are generally low in organic matter, and special cropping systems are necessary to improve soil fertility and conditions before maximum yields are possible. Lack of capital for financing the early years of settlement and for building up the productive plant of buildings, machinery, and livestock often is a serious and vital problem. Unfamiliarity with irrigation practices and problems complicates the chances for early success. Many of the expected settlers on these developments will come from nearby areas and from other parts of the West where conditions are somewhat similar, but many settlers will be migrants from the Great Plains, where the type of farming and previous experiences have been entirely different from the situations encountered on the irrigation developments. Radical adjustments in farming methods and in modes of life will be forced on such migrants.

The settlement of new lands on the Vale reclamation project in eastern Oregon began in 1932. Since then, approximately 1,000 new farms have been established on the Vale project and on the adjoining Owyhee project. Many of these settlers were migrants who had been driven from their former homes by drouth or a desire to find better opportunities further West. Others came from occupations other than farming. Most of them had few resources. The Farm Security Administration extended credit to those who could qualify. Approximately 500 farmers, of whom about 350 were migrants, had loans from the Farm Security Administration in 1938.

Directed Credit for New Settlers

Results of a cooperative study by the Division of Farm Management and Costs and the Division of Land Economics of the Bureau of Agricultural Economics, the Farm Security Administration, and the Oregon State Agricultural Experiment Station, offer pertinent information for a basis for making judgments on the problems encountered on newly irrigated lands and on the possibilities for successful resettlement opportunities of such areas.

The Vale-Owyhee projects represent an important instance of directed credit for new settlers. This study represents one of the few attempts made to measure carefully the results of the settlement process, made while settlement was under way. The results should be particularly applicable to other projects now under construction in the Pacific Northwest, where conditions are similar to those found in the Vale-Owyhee area of eastern Oregon.

Lack of capital resources.—The settlement of the available lands under this development has occurred largely from 1932 to 1938. Antispeculation provisions of the Bureau of Reclamation made it possible for settlers to acquire land at prices varying from \$5 to \$15 an irrigable acre depending upon the grade of land. An average 80-acre farm cost about \$800 for land, with from one-third to one-half as a usual down payment. The dwellings may be modest, but the machinery, equipment, and livestock must be adequate for reasonably successful operation. Moderate amounts of available capital resources are imperative. Most of the settlers in the Vale-Owyhee area have been pressed for funds.

Clients of the Farm Security Administration on the new lands had a net worth of about \$1,500 at the time of settlement, whereas non-Farm Security Administration farmers had a net worth of approximately \$3,000 (table 1). Farmers settling in the older irrigation districts adjacent to the new developments had net worths averaging \$5,000 at the time of settlement. Settlers on the new lands were definitely more limited in resources. The limitations of capital resources are understood better if one realizes that the farms will average about 70 cleared, irrigated acres

and may be expected to have a value of from \$8,000 to \$10,000 when fully developed. The average value of farms surveyed in adjacent old irrigated areas was almost \$11,000 on December 31, 1938.

The Farmers' Varying Needs for Loans

The inadequacy of capital resources necessitated average loans of more than \$1,000 in 1938 to those farmers who produced their first crop in 1938 and who were able to avail themselves of Farm Security Administration rehabilitation loans (table 2). Settlers not Farm Security Administration clients had much larger amounts of machinery and live-stock at the time of settlement and thus did not need such large amounts of additional capital. Their cash resources also were considerably larger. Thus they could finance themselves to a greater degree.

TABLE 1.—Average value of assets at time of settlement on present farm by type of settler, Vala-Owyhee area, Oregon ¹

Item	Farm Security Administration clients in new areas	Non-Farm Security Administration farmers in new areas	Farmers in older irrigation districts
Number of farms.....	36	45	29
Total farm property.....	\$528	\$1,503	\$1,382
Cash and accounts receivable.....	646	1,087	3,047
All other assets.....	549	1,132	731
Total all assets.....	1,723	3,722	5,160
Total liabilities.....	157	487	159
Net worth.....	1,566	3,235	5,001

¹The financial statement was obtained for the period immediately preceding the purchase of land or other property on the present farm. No land values are thus included in the statement of farm assets except for 1 or 2 farms in each of the groups where the land was purchased several years prior to the time of settlement. These values are included in the item "Farm property," but are of minor importance. Real estate owned elsewhere than the present farm is included under "All other assets." Value of household property comprises an important part of this latter item. These data are limited to owners and part owners.

The farmers' needs for loan decreased with the length of their residence on the farms. Those on their farms 4 or 5 years were able to make repayments of their previous loans and capital obligations.

Successful Farming and Repayments

Time is the essence of the settlement process. Needs for financing during the early years are apparent. Conversely, the possibilities of

meeting repayments appear to be favorable if the settler is given time to develop his farm into a going enterprise. This suggests the need for a loan policy on the part of lending agencies adapted to the needs of the settlers and their ability to repay. Data collected on this project point toward a plan requiring little if any repayments during the first 3 or 4 years of settlement and substantial repayments of loans only after the fourth or fifth year. This process has been accomplished practically by the extension of loans, but more desirable results for both loaning agency and farmer might be accomplished by a change in repayment policy.

The ability of the settler to meet financial obligations is closely related to his ability to establish a proper farm enterprise at the beginning and to make relatively rapid adjustments.

During the early years of settlement two general types of change were outstanding: First, there was apparent a rapid increase in the size of productive plant, such as more cleared acreage, more livestock, and more machinery and equipment. Second, there was a marked shift in the internal organization of the farming system.

TABLE 2.—Average loans received per farm, and debt repayments made in 1938, Farm Security Administration and non-Farm Security Administration farmers on new project areas distributed by number of crop years on present farm, Vale-Owyhee area, Oregon

Settler type and number of crop years on present farm	Farms (Number)	Loans received in 1938 (from all sources)	Repayments of principal in 1938 ¹	Excess or deficit of principal payments over loans received
Farm Security Administration clients:				
On farm 1 year.....	8	\$1,072	\$158	—914
On farm 2 years.....	20	366	119	—247
On farm 3-4 years.....	5	195	267	+27
On farm 5 or more years...	7	230	486	+256
All Farm Security Administration clients.....	40	462	209	—253
Non-Farm Security Administration farmers:				
On farm 1 year.....	15	274	197	—77
On farm 2 years.....	13	202	126	—76
On farm 3-4 years.....	10	132	218	+86
On farm 5 or more years...	11	649	838	+189
All non-Farm Security Administration farms.....	49	310	326	+16

¹ Includes mortgage and land purchase contract payments.

The lack of organic matter and nitrogen in the raw desert soil necessitated early cropping to alfalfa or clover to build up the soil for more intensive cropping. Grains planted as a nurse crop for the legumes generally are the first crop. After several years of legumes the soil productivity and structure is fitted for production of potatoes, sugar beets, onions, and other intensive crops. This is the approved system of crop rotation, but the need for current income forces many farmers to cut short the period of soil improvement.

Contrary to popular impressions, not all irrigated farming is done on level or gently sloping lands. While much of the newly developed farm lands on the Vale-Owyhee project conform to this description, considerable areas have moderate to steep slopes. The management of such land for permanent agriculture means that the steeper slopes must be kept in alfalfa or permanent pasture most of the time, and raw crops avoided. If the individual farm is composed largely of such slopes, an entirely different farm organization is necessary than on gently sloping farms, where alternative cropping systems are possible. Soil slope and structure may impose drastic limitations upon the choice of a cropping system, and thus may affect the progress of the settler.

Unfortunately, though perhaps necessarily, much effort is expended without sufficient knowledge of the situation or the problems involved. Many settlers are unfamiliar with approved practices and methods of irrigation farming and do not realize fully the dangers involved in irrigating slopes and leveling land where soils may be shallow. Settlers on raw land require special research and extension assistance from the agricultural colleges and the Department of Agriculture. Technical workers in agriculture can give much needed assistance, but they likewise suffer from a lack of knowledge on many problems connected with the development of a new agricultural community. The adaptation of the various crops to the local climate and soils, proper combinations of crops and livestock at various stages of farm development, and the adjustment of local production to available market outlets or the provision of new outlets are some of the important problems confronting technical workers and farmers.

Problems of Market Outlets and Production

The Vale-Owyhee development provides a striking example of the scope of some of these problems. Originally there was a balance between hay production in the irrigated valleys and demands of range cattle and sheep for winter feed. With the advent of the new irrigation development and the attendant vast increase in hay production, the

former demands for hay in the local market are much over-supplied. Farmers in the older irrigated sections of the area are adversely affected as the new lands compete with the old for the available market for hay. The result has been a shift away from hay as a cash crop and into other crops and more livestock. The new settlers attempt to meet the situation by increasing their livestock, but generally hay supplies tend to increase faster than livestock during the early years of settlement. This lag in livestock numbers is due both to the inability of the settler to finance purchases of livestock as well as to the lack of sufficient livestock in surrounding areas to keep pace with rapidly increasing hay supplies. Natural propagation requires considerable time to bring about a readjustment in the area. In any new area the timing of new developments should permit the expansion of market outlets at approximately the same pace. Here, also, research and other assistance from public agencies is desirable.

Because of the distance of the area from central markets, it appears likely in the Vale-Owyhee area that the major reliance for income from crops will be placed on intensive speciality crops like potatoes, sugar beets, onions, and seed crops, with the major acreage continuing to be devoted to alfalfa and clover hay production converted into livestock and livestock products. The eventual balance between the proportion of cash income from crops and from livestock will depend largely on price relationships.

Despite the many difficulties encountered in the development of newly irrigated lands, the settlers on the Vale-Owyhee projects have made surprising advances. Most of their resources, both labor and capital, have gone into the development of their farms so that they have in general been forced to live frugally. This is particularly true during the first 2 or 3 years of settlement. Net income for operator, family labor and capital invested during 1938 for farms sorted by number of crop years on the present farm were as follows:

Number of crop-years on present farm	Number of farms	Net farm income
1.....	23	\$130
2.....	33	310
3 to 4.....	15	944
5 to 7.....	13	1,357
8 or more.....	5	1,322

The above data represent net income on a basis which includes inventory changes. On a cash income basis the results were less favorable. For instance, the group of farmers on their present farm during 1 crop year actually spent on their farms an average of \$441 more than was received as gross cash farm income, largely because of the need for building up farm facilities during the early years. Even on those farms in operation 5 years or more the cash income was from \$400 to \$700 less than income figured on an annual basis, mainly as a result of increased livestock and hay inventories. The settlers generally were hard pressed for cash and for capital, and progress was reflected largely in an increase in value of farm assets.

In 1938 the farms studied on the new projects increased in net worth an average of \$664 per farm. The farms in operation 5 or more years had an indicated increase in net worth from time of settlement to December 31, 1938, averaging \$5,793 per farm. In this appraisal land values were increased only for actual improvements made to the land on the basis of conservative values for clearing and improvement operations. Although the exact value and amount of increase may be disputed, it is impossible to question the fact that most settlers have made material advances in their economic status. The rate of progress is greatest during the early years of settlement. As yet no charges have been assessed against the new lands for construction costs of the irrigation works. When such assessments are made progress may be largely in terms of a reduction of construction obligations.

Most settlers have expressed optimism concerning the possibilities of establishing a satisfactory farm home. The scale of family living as reflected in cash available for family expenditure and in numbers of farm and family conveniences and facilities generally improved as the settlers were on their farms longer. Farm families in the older adjacent farming areas averaged larger family expenditures than most families living on the new lands. However, those families on new farms 5 or more years were approaching the older group in scale of living as measured by family expenditures. As in the earlier pioneer days, many settlers on these projects have been forced to live frugally and on a low level of living as measured by standards prevailing in older established communities. Developing the farms entails many privations on the part of the family, but each family is offered the hope with reasonable expectation of success that its welfare will be improved.

While reclamation development in this area has not provided for large numbers of farm people, nor has it solved all of their economic ills, it apparently has offered an opportunity for those accommodated to re-establish themselves on a going basis with good prospects of improvement in their way of life.

Range Carrying Capacity and Private Ownership

by MARION CLAWSON

BY FAR the greater part of the western two-fifths of the United States is used primarily as grazing land. The Forest Service¹ has drawn the boundary line of the Western range livestock region approximately through the center of North Dakota, extending southward to include the western one-third of Kansas, and veering slightly to the east to include more than half of Texas. The total area west of this line is 975,000,000 acres, of which some 728,000,000 acres are used primarily as range for livestock. While the productivity of most of this region is low, it has a general social significance to the entire country. In the first place, slightly more than one-third is in Federal ownership. In addition to its value as a source of feed for livestock, much of the range area has fairly high watershed values and some of it has recreational and scenic values as well.

The Forest Service in 1935 estimated² that forage depletion on this vast area averaged 52 percent. That is, the productive capacity of this land had been cut nearly in half. Depletion was least in the national forests, which had been positively and constructively managed, and greatest on public domain and grazing district land, which until 1934 were a "no man's land" without management. Depletion on privately owned range had been about average, or 51 percent. In 1935 the trend was downward on more than 75 percent of the privately owned range lands.

These figures and conclusions of the Forest Service have been criticized and disputed. It has been contended that the methods used were faulty, that much of the data related to unusually dry years, and that the continued volume of livestock production in the West was ample evidence that range lands were as good as ever. Without taking part in this controversy, we may conclude that range lands of all types are now less productive than they were in their original condition and that private ownership of range has not sufficed to maintain carrying capacity or productivity. The range conservation program of the Agricultural Adjustment Administration has been aimed at restoration of privately owned grazing land to somewhat nearer their original productive capacity

¹ S. Doc. 199, 74th Cong. 2d sess. *The Western Range*.

² *Op. cit.* p. 6.

and has been initiated in response to the requests of range livestock operators.

The Necessity of Leaving Some Forage Growth

The question naturally arises, Why have the owners of range land not maintained its carrying capacity? To appreciate what has happened, we must understand what is involved in maintenance of carrying capacity. One essential requisite to maintenance of range forage plants in vigorous condition year after year is to leave a part of each year's growth ungrazed. Harvest of the entire year's growth or the constant cropping by grazing animals of the leaf area as it is developed prevents the adequate storage of food materials in the root system. Harvest of all or nearly all of the annual growth results in a weakened root system so that plants are unable to produce the same volume of growth, even under the same soil and moisture conditions. As forage growth declines, soil erosion frequently ensues. The amount of photosynthetic material which it is considered advisable to leave after completion of the grazing season varies from 10 to 25 percent of the total volume, depending upon the species and its relative importance as a forage plant.

The range region is one of low and variable precipitation. In order to be fairly sure that the amount of forage grazed in a particular year does not exceed growth in that year, it is necessary to utilize less than the current increment during the grazing season, to insure the proper development of forage during the succeeding growing season. The amount of forage which should be left for this reason varies considerably between different parts of the range region, but probably averages more than 10 percent of an average year's growth. Craddock and Forsling² conclude that in southern Idaho on sagebrush-grass range grazed in spring and fall only 65 percent of average annual forage growth can be harvested if carrying capacity is to be maintained. In very dry years, little forage will be left and plants may be weakened somewhat. In wet years, perhaps only half or even less of the forage will be grazed.

With perhaps 35 percent of the average year's plant growth remaining ungrazed at the end of the season on properly used ranges, an explanation is furnished for the apparent contradiction of fairly well-fed animals and a deteriorating range. The animals consume the forage which should be left ungrazed. This cares for the animals more or less satisfactorily, but is very hard on the range. Increasingly severe overuse of ranges may be an explanation of fairly constant livestock numbers and a simultaneous decline in carrying capacity. Livestock numbers and condition are not conclusive evidence regarding range condition.

² U. S. Department of Agriculture Tech. Bull. 600. *The Influence of Climate and Grazing on Spring-Fall Sheep Range in Southern Idaho*, by G. W. Craddock and C. L. Forsling.

The Pioneer Necessarily Was An Optimist

In explaining the very general overgrazing of range lands, it is helpful to recall the history of the West. The range area was settled very largely by people from the central part of the United States, and was largely occupied within the space of one generation. These settlers were accustomed to a humid climate, and had no basis of experience for a semi-arid climate. The results of overgrazing are sometimes so long in making themselves felt, and may be obscured entirely by climatic cycles, that a too intensive standard of range use had become accepted by the settlers before sufficient experience had been acquired to serve as a reliable guide. The pioneer was an optimist, or he wasn't a pioneer. Tall, waving grass, "up to the stirrups," was assumed to represent a year's growth, whereas it often represented the cumulative effect of several favorable seasons and very little use. Livestock were brought into an area, to utilize the grass found there, only to find that annual growth of grass was much less than had been anticipated.

Progressive overutilization of ranges generally resulted in a gradual displacement of the more valuable species by inferior ones, without noticeable changes in plant density. A relatively constant amount of cover obscured the trend of ecological retrogression. Range users frequently were not aware of the fact that the carrying capacity of their ranges was becoming less.

It has frequently been assumed that livestock operators were poor business men when they depleted their ranges, or at least that they could be excused only because lack of adequate control over the range prevented them from using the range in a conservative and profitable manner. This viewpoint assumes that conservative use and profitable use are synonymous. This is by no means true. The range livestock operator has the choice of harvesting as much as possible of each year's growth and thereby reducing future production, or of harvesting somewhat less than the maximum each year and retaining the full productivity of the land. He must balance present income against future income.

Extra Forage, Interest, and Production Loss

An illustration will show how this works. A rancher owns a tract of range which produces, on a conservative use basis, \$500 net income annually. If the going interest rate is 5 percent, this tract of land may be capitalized at \$10,000. Suppose now that by utilizing this range in such a way as to obtain 10 percent more forage in a particular year, the productive capacity is reduced 1 percent. Income will be \$550, or \$50 greater than under conservative use, against which must be balanced a loss of capital of \$100. In this case, the rancher lost by too heavy use of the range. In this very simple illustration, we have ignored such prob-

lems as the fact that income may not increase in the same proportion as does the amount of forage harvested, that depletion may or may not be permanent, that land values may not follow changes in income producing capacity, and so forth.

From this simple illustration we can see that the incentive to overgraze is higher in proportion to the amount of extra forage which can be harvested in a particular year and the interest rate, but inversely proportional to the loss in productive capacity as a result of too heavy use. If the rancher in the above illustration could have harvested 20 percent more forage in the particular year, other factors remaining the same, he would have exactly broken even; if 30 percent more forage, he would have made \$50. If the interest rate had been 10 percent, and the land capitalized at only \$5,000, he also would have broken even. Or if the loss in productive capacity had been one-half of 1 percent instead of 1 percent, the result would have been the same.

The income or loss from overgrazing is determined by balancing the gain in feed obtained, on the one side, and the loss in productive capacity on the other side. These relations may be expressed in a formula, as follows:

$$\text{gain (or loss)} = (\text{percent overuse times income to land}) \text{ minus} \\ (\text{annual income to land times percent loss in} \\ \text{productive capacity divided by interest rate})$$

In the above illustration, $\text{loss} = (10 \text{ percent overuse times } \$500) \text{ minus } (\$500 \text{ times } 1 \text{ percent divided by } 5 \text{ percent}) \text{ or } \$50 \text{ minus } \$100, \text{ or } \50 net loss.

The assumption is that the gain from overuse is proportional to such overuse. This assumption is not precisely accurate, but probably is not too far wrong for moderate degrees of overuse. By insertion of estimated figures for the respective items in the formula, an estimate of gain or loss can be secured. Since income to land appears in both parts of the equation, any illustrative amount may be used, if estimates are available for the other figures. The degree of overuse and the depletion of productive capacity should be consistent, since these are interdependent.

Quickening Rate of Depletion

What have actually been the extent of overgrazing, the loss in productive capacity, and the interest rates prevailing in the West? The loss in productive capacity (depletion) has been estimated at 52 percent, as we have noted. Some of these lands were used as early as 1860, others have been brought into use more recently. The less accessible parts of the range area have been brought into full and regular use in comparatively recent times. The entire range area has not been subjected to full use for more than 50 years. Depletion of 52 percent in 50 years

may not mean an annual depletion of exactly 1 percent of the original amount. Depletion was probably slow at first, then more rapid, with possibly a later stage during which retrogression proceeded slowly. Precipitation cycles have temporarily reversed the longer trend, or have greatly accelerated it at other times. As to the degree to which ranges were overgrazed each year, we can only hazard a guess, and a wild one at that. It seems unlikely that overgrazing was uniform, year by year. In a series of wet years, there was more grass than the livestock could eat. In drought years, they ate all the feed and may have gone hungry as well. We know that interest rates varied greatly between different parts of the range area and at different times. They have generally been much higher than in older agricultural areas. Until recently, interest at 8 percent was commonly paid on loans made with ranch property as security. In earlier periods, interest of 10, 12, 15 percent and more was not uncommon, and in the earliest pioneer periods interest as high as 50 percent was paid.

Suppose we assume that range depletion has averaged 1 percent of the original capacity annually, at what rate of interest and at what rate of overgrazing annually has the rancher gained and at what rates has he lost? If interest rates are very low, it is practically impossible to harvest enough feed in a particular year to offset the assumed loss of productive capacity. With a harvest of 20 percent or more forage annually in excess of that amount which conservative use will permit, loss of productive capacity may well exceed 1 percent annually. With higher interest rates, it is possible to break even with a much lower annual overharvest. With an interest rate of 8 percent, the grazing of approximately 12 percent more forage than is possible with management for sustained yield will just break even. It is possible that overgrazing of this extent will not deplete the range more than 1 percent annually. With an interest rate of 12 percent, the marginal point is approximately 8 percent overgrazing.

Present Income Versus Future Income

If we assume that the Forest Service estimate of range depletion is much too high, and that it has averaged annually one-half of 1 percent of the original capacity, overgrazing became profitable at a much lower degree of overuse. With an interest rate of 2 percent, the increased income from overgrazing of 30 percent would slightly more than offset the loss in capital value if the latter were as low as one-half of 1 percent. An overuse of 30 percent would almost surely mean an annual range depletion of more than one-half of 1 percent. With an interest rate of only 6 percent, overgrazing would just break even with an overuse of 8 percent, assuming that annual depletion would be as low as one-half

of 1 percent. If annual depletion is only one-half of 1 percent, a smaller degree of overgrazing becomes profitable with 6 percent interest than was the case with 8 percent interest and an annual depletion of 1 percent. With an interest rate of 12 percent, overgrazing becomes profitable with less than 5 percent overuse, if annual depletion remains at one-half of 1 percent. An overuse of less than 5 percent might readily result in an annual depletion of only one-half of 1 percent. Interest rates have averaged 12 percent or more in large parts of the range area for long periods of time. During the earliest years of range use, interest rates were very high, and depletion was probably relatively small, since the cumulative effect of overgrazing had not begun to make itself felt. Every factor was favorable to excessive use.

Accurate, adequate data for our purpose are lacking. There is considerable probability, however, that there have been many situations and circumstances in the West which have made it profitable, from the viewpoint of individual gain or loss, to overgraze range land in order to receive present income at the sacrifice of future income.

The illustrations given might lead to the inference that overgrazing would not be done by an intelligent rancher when, for example, interest rate was 4 percent and a 10 percent overuse would result in a 1 percent depletion of the range. An apparent loss of \$75 annually would be suffered. Such an inference would be wrong. The foregoing calculations are based on the assumption that land values directly reflect income to land and interest rate. Income to land varies widely.⁴ In periods of high income to land, land values rise greatly and sales of ranch property are comparatively numerous. In periods of low income to grazing land, values fall slowly and sales occur only in distress situations. Because so many more sales occur under conditions of better than average income to land than occur under average or below average conditions, the weighted average land charges actually incurred by ranchers exceed the charges that would have existed had land charges been the subject of negotiation yearly instead of at longer intervals.

How Can Productive Capacity Be Maintained?

Comparatively high fixed land charges operate in exactly the same way as do higher interest rates. A rancher may have purchased a ranch for \$12,000 when its value on the basis of long-time earning capacity is only \$8,000. Although the going rate of interest is only 6 percent, he is in exactly the same situation as far as land use is concerned, as he would be if the interest rate were 9 percent. He realizes that overuse of the

⁴ *Effect of Changing Prices Upon Income to Land from Cattle and Sheep Ranching, as Illustrated by Data for Montana, 1910 to 1936, by Marion Clawson.*

range will result in its depletion, but it is the only course of action open to him.

To summarize: Range lands have generally become depleted; private ownership has not prevented this depletion; it may have been profitable to have done so; and conservative use of the range always results in leaving a considerable portion of the forage ungrazed in all except the driest years, presenting a constant inducement to overgrazing.

Can the average rancher, particularly when subject to extreme fluctuations in income and when burdened with heavy land charges, forego present income in order to safeguard future income? Is he not likely to increase his livestock numbers in a series of wet years or of high price years, and later reduce livestock numbers so slowly that the range will be seriously damaged? Even granted that with present conditions it is never profitable to overgraze lands, will the average rancher actually use his land conservatively and on a sustained yield basis?

Many people doubt it. They point to the downward trend in condition of privately owned range, and to the maintenance of satisfactory conditions on actively managed Federally owned range. They feel that maintenance of range-carrying capacity by all livestock operators is impossible, even if most ranchers do maintain their lands. To these critics of private ownership of range land, public, possibly Federal, ownership seems to provide the only answer. They are sure that Federal ownership will preserve the productive capacity of range lands, and that the gain from so doing will offset any possible disadvantages from public ownership.

Most range livestock operators and many others are opposed to wholesale extensions of the area of land in Federal or other public ownership. In part this opposition is based on the consideration that publicly owned lands are removed from the tax rolls, although they may contribute income in other ways. Much of the opposition to increased public ownership of land is based on a deep-seated preference of private enterprise and a mistrust of public ownership.

Persons who hold this view would have to admit that private ownership of range land has not maintained productive capacity, but they would argue that many conditions have changed. They would say that it is no longer profitable to overgraze range lands, livestock men are better informed now than were their predecessors, control over public range has become sufficient to obviate the necessity for overgrazing as a means of securing control, and range land is now valued as range and not as potential grain producing land. The opponents of public ownership would further argue that if private ownership has not operated wholly satisfactorily in the past, the best line of attack would be to assist private owners in making the necessary adjustments, not in a shift to public ownership of a significantly larger area of range land.

The City-Country Equation

by LEONARD A. SALTER, Jr.

It is obvious that the use of agricultural lands, except for purely self-sufficient farming, is largely dependent upon conditions in our cities. The utilization of all commercial farm and forest lands and the welfare of our agricultural population are directly related to urban purchasing power and urban consumer habits. Important as these relationships may be, they are often difficult to visualize in local terms. There are, however, other important and more intimate ways in which the close ties between city and country may be observed. In many rural areas much of the land, of course, is used directly by urban people for other purposes than for commercial agriculture. Then, too, in areas close to cities even lands that are utilized for commercial farming are affected by their proximity to the urban centers. We are concerned here with those urban-rural relationships which show up with particular clarity in land-use planning.

Land-use planning concerns the pattern of economic units in an area. When farmers and agricultural planners deal in terms of land-use patterns, of necessity they must take into consideration the use of all lands in the area under discussion, even though some of the uses may not be for full-time commercial farming. It is to a large extent as a result of land-use planning studies that we have begun to have respect for the importance of nonagricultural land uses in many rural areas. And many of these nonagricultural uses represent direct use of the rural lands by city people. We shall shortly see that these conditions are not solely restricted to rural areas in very close proximity to large cities.

Even if we were to overlook these nonagricultural uses in our land-use planning studies, we would most certainly be faced with them in putting our recommended adjustments into effect. A number of measures that are used to achieve land-use adjustments must be put into practice through local institutions such as townships, county, and State governments or especially created districts. Such local units are seldom, if ever in a democracy, specifically set up for a particular group. They are prescribed in terms of a geographic boundary and encompass in their membership and jurisdiction all who reside in or have property in that district. Certainly, it would be unwise to expect such a unit of government to execute a local program unless all of the interests represented in and by it had been given adequate consideration. This observation may sound like an armchair, commonplace comment. As will be pointed out, however, promising rural land-use programs have already

received severe set-backs for failure to recognize the importance of the suggestion.

Points Where Town and Country Interests Touch

What types of rural land uses are directly affected by urban groups? And are not these uses clearly seen by agricultural experts and by local farmers? The answer to these questions is that there is a great number of such uses and that the importance of only some of them is readily recognized. We might conveniently group these uses as uses of rural lands by urban people for residence, for recreation, for profit-making, and for city facilities.

There is a paradox in referring to the use of rural lands by urban people for residence, for these families, geographically at least, immediately become rural residents. Economically, however, the primary interest of such people is not in commercial agriculture. Where they are still productive, their economic interest is in the wage or salary job they have in city or town. Furthermore, in looking to the future, the trend in the utilization of rural lands for residence purposes depends upon the actions of people who are not now a part of the rural population.

The use of rural lands for residence purposes is, from the point of view of rural land values and trends in rural population, the most important of the uses listed above. Generally, it takes two forms: that of purely rural residence or that of part-time farming. In the former case, city families take up a parcel or small acreage of land outside of the city simply for a building lot. Rural residences do not add up to a very significant aggregate acreage, nor do they alter the agricultural output. They are likely to be confined to strips of land along paved rural roads and intercity highways. They tend to keep fairly close to the industrial towns or cities.

Because the acreage of rural residences is most often less than 1 acre and seldom over 3 acres, they are not counted in the Agricultural Census. It is very difficult to know their number. Those who have made guesses, however, usually count in terms of scores of thousands for single States.

The Many-Sided Aspects of Part-Time Farming

Another type of direct rural land-use by city people for residence is part-time farming. The increasing attention given to part-time farming, first by researchers, then by planners, and now by action and educational agencies as well, has been a phenomenon of just the present decade. Our ignorance of part-time farming and our misconceptions of it (not all dispelled as yet) become more amazing as investigations reveal its importance in every State in the Union and picture it as a

normal feature of our rural economy, past and present. Even in some States where half or more than half of the farms are part-time farms, agricultural programs and rural-life programs have failed to appreciate this whole side of the rural structure.

Part-time farms may be less numerous than rural residences, yet account for a much larger acreage. Similarly, they may be much more numerous than full-time commercial farms, yet utilize considerably less land. All part-time farms are not necessarily dependent upon cities. Some part-time farmers work in agricultural or other purely rural occupations. Part-time farm families that obtain work in urban occupations, however, are the most significant group, and such families can and often do live at considerable distance from the places where they work. While the greater number of part-time farmers with city or town jobs live within 10 miles of their place of employment, there are numerous cases of their commuting 10 to 20 miles or more each way daily. In view of this expanding commuting radius and because of the scattering of both huge urban centers and small industrial villages over a large part of the United States, it should be obvious that part-time farming as a rural land-use is no small, localized condition.

Many part-time farmers, while they have moved directly out of the cities, were brought up on farms. A large number are foreign-born rural people who spent a few years after their arrival in this country working and living in our cities. They are not, therefore, city folk who have no background for rural living. Furthermore, farm background or no farm background, studies indicate that almost all of them like their present way of living. This fact in itself would give reason for expecting a continued increase in part-time farming, but this prediction is also supported by other factors such as the extension of paved roads, improvements in inexpensive automobile transportation, the development of rural electrification, and shorter working hours.

When Urbanites Seek Recreation Places

Another type of direct use of rural lands by city populations is for recreation. In this category are private uses for summer homes and public uses for park and recreational forest areas. While even the residence uses are found surprisingly far from urban centers, the recreational uses occur still farther in the cities' hinterland. Some public recreational areas, within a few hundred miles of particular cities, are used primarily by the residents of those cities. The range of private summer homes belonging to people from the same urban centers often extends beyond these public areas. Other public recreational lands, particularly of the type of our great national parks, are used by citizens of many regions and are at long distances from the country's great cities. In all cases, however, the lands are in rural districts and they are used primarily by city people.

In some rural areas the development of private recreational uses is of first importance. Thus, in Washington County, R. I., 88 percent of the recreational lands are in private ownership. While all recreational uses account for only 10 percent of the county area, they represent 37 percent of the county's valuation on the tax assessment rolls. Again, in Oneida County, Wis., 8.5 percent of the area is in private recreational lands and these account for 27 percent of the real-estate tax base. In southern Grafton County, N. H., summer places comprise 6.5 percent of the area, but they are 20 percent of the total assessed valuation in land and buildings.

Public recreational areas, particularly those of the recreational forest type, cover large acreages. In Cattaraugus County in western New York, nearly 10 percent of the land is included in one State park. About 3 percent of the land area of all New England is in public ownership and the suggested acquisitions by local, State, and Federal agencies would bring the figure to more than 15 percent. The best report yet available recommends doubling the present acreage in State parks alone for the country as a whole. In Missouri, State park acreage should be expanded 5 times; in Kentucky, 15 times; in Maryland, 40 times. These estimates are based on recreational needs that should be provided by the States. Even if there is no expectation that these increases will be achieved in a short time, and even assuming that suggested recreational needs were greatly over-estimated, still the implications for those concerned with land-use planning in rural areas affected can hardly be emphasized too much.

Profit Uses Obnoxious and Beneficial

Some city people are interested in the direct use of rural lands for profit-making. Some of these uses are readily discernible. When they appear in the form of strings of hot-dog stands, billboards, and gasoline stations along highways through rural areas, they are not only visible, they are obnoxious. There are, of course, numerous commercial uses of rural lands that are entirely advantageous, and are proper additions to the local rural economy. Such uses are usually important when they occur because of the high economic values associated with them, even though their occupancy of rural space is not great.

Another type of use of our rural lands by urban people for profit-making may become important without occupancy and without physical real improvements. In this instance, the rural lands serve only as the deck of cards in a huge poker game. The lands involved are likely to be physically unproductive. They can be subjected to subdivision without changing the outward appearances at all, while the legal title to the small bits of property may be dealt in no end. Among the results of such operations may be an inextricably tangled mass of conflicting titles and a heavy burden of uncollected taxes. These operations are com-

monly found close to suburban areas, yet some important examples may be found relatively far from the cities in which the selling transactions are carried on.

Many of the buyers in these schemes are not interested in using the land except for making money. They, therefore, hold title to land without having any vital interest in the local welfare. If, on the other hand, several purchasers do try to occupy and use the land, all that can be expected at most is a poorly planned community, and at worst, human misery and suffering.

Finally, areas may be used to provide certain facilities for the city populations such as roads, reservoirs, or watershed-protection areas. While uses of this type do not affect a great total acreage, they require the earnest consideration of rural-land planners. Intercity highways are built without regard for the rural areas through which they pass, yet they exert a sharp impact upon those areas, encouraging the development of new nonagricultural land uses and offering significant new facilities for agricultural uses. Some reservoir areas as now required by our large cities are planned to engulf several townships. But however restricted the actual size of these artificial lakes, no form of land-use adjustment is quite so thorough as permanent inundation.

Developing Aspects of Farm-City Relationships

The other side of the city-country equation in land-use planning concerns the influence of nearby centers upon commercial farmland that is likely to remain in agriculture. Not all part-time farm families with nonfarm employment have emigrated from the cities. Industrial developments in neighboring centers have opened up opportunities for members of farm families of the rural districts, and often these opportunities have been seized without materially altering the farming activities of the families affected. Particularly in respect to farm children, it is becoming common in these areas for the sons and daughters to commute to work rather than to move into the city. Also, in certain cases, employed sons upon marriage are building their new homes on a part of their parents' farm property.

The improvement of roads to nearby population centers is aiding farmers to take advantage of the wide margins between farm and city prices by doing their own retailing in the cities. This important relationship is also finding expression in the growth of roadside stand marketing.

Where the above-mentioned or other city-country relationships have a bearing on rural land-use problems, the agricultural planning task requires particular care, since we are not yet as familiar with these problems as we are with some others. Unfortunately, as our understanding is far from complete, there is a tendency to substitute "thought-savers,"

to use a convenient phrase of Lincoln Steffens. Certain new land uses must be discouraged because they are "bad"; others must be encouraged because they are "good." Publicly-owned areas "cut tax valuations"; part-time farmers "compete with agriculture"; and rural residences "drive the farmers out." Commercial uses, on the other hand, "bring money into the community."

Technical and lay agricultural planners must regard these problems in a fully constructive manner. Their attention should focus on ways and means, not just to keep out or bring in new land uses, but to direct the development of them in such a way that they will add to the total welfare of the local rural economy while meeting the needs of other citizens in nearby communities. Unless this broad viewpoint is adopted, plans will be incomplete, and, further, it will be difficult or impossible to put them into effect. Probably more than any other factor that affects rural land-use patterns, urban influences require considered tolerant judgment in land-use planning.

Farmer as Taxpayer and Farmers as Communities

Just how do these "outside" factors affect persons whose pressing concern is agricultural planning? From an individualistic point of view, the implications of these problems directly affect the farmer as a taxpayer. From a group standpoint, they involve problems and programs of his local government. In the light of a full social attitude, they affect the desirability of the whole community as a place for farm families to enjoy living.

Here is a township in which half of the area will soon be in public ownership. The public area is to be developed for recreation—fishing, boating, picnicking, camping. Are the farmers in the other half of the town going to suffer because their township tax base has been cut? Are they to gain a reduction in the costs of local government and an increase in State payments in lieu of taxes? Is the influx of pleasure seekers going to ruin the rural atmosphere of the town? Will the local residents use these new recreational facilities? Did the existence of the scattered farms in the area add more to the local economy than will the new use of that land? These are among the many questions that arise in connection with this adjustment.

Here is a county where a decision must be made as to the expenditure of funds on new roads. Is it more, or less, important to get some of the existing farms in one corner of the county "out of the mud" or to improve the roads in a different part of the county near an employment center? Will the former policy increase the total income of those farmers substantially? Would the other road lead to a development of new homes and part-time farms in the county?

Here is another township where a number of new summer homes have appeared. Should these nonresidents' places be assessed higher than residents' year-round homes? If they are, will additional summer homes be built in the town?

Dams and Floods; Bottomlands and Urban Centers

Here is a county where good farmlands are scarce and the little land adaptable to profitable cultivation is located in the bottomlands. To protect large urban centers downstream from flood damages, a large dam is proposed. The impounded waters, however, will cover almost all of the good farm land there is in the county. The trails of rural land-use planning problems which follow from this situation are numerous and certainly very serious for the farmers in that county.

In another rural township a subdivision for rural residences is getting under way. Are the operators making adequate provision for roads, sewage disposal, water supply? If not, will the local government have to supply these facilities later in order to avert a health problem?

Each of the above illustrations is generalized, but each is based on actual conditions. It should be clear that in any locality where questions like these are arising, no planning will be effective unless a real effort has been made to balance all the interests involved and to make decisions for rural and agricultural programs in terms of all influences that bear on the land-use pattern. Without such consideration, we may some day be surprised to find that serious problems have developed in certain areas simply because no attention was paid to the causes of those problems. In other cases we may prevent such undesirable developments, but only at an unnecessary social expense.

It is not difficult to find numerous instances where plans have been formulated and completed for the development of needed city facilities in which the use of rural lands was involved without considering the problem from the local standpoint. Time and again we hear that the rural inhabitants of an area are rising in protest against the purchase of local land for a public park, a through highway, or a flood-control, or water-supply reservoir. If such protests have sound support in the facts of the case and are effective, whatever planning has been done is, of course, wasted effort, at least in part. To this extent either side or both may be responsible for a lack of coordination and a narrow concept of the full planning task. If the protests cannot be substantiated under unbiased consideration, they should not carry; rather, the efforts of the rural planners should be devoted to assuring a proper local adjustment to the new conditions. In any event, it is clear that the whole job of

planning for the city's needs just cannot be left as outside the concern of those with rural interests.

The Rural Citizen Who Has No Farm Ties

On the other hand, the rural planners must constantly remember that programs for nonurban areas often depend in part upon persons with interests other than farming. A case in point is one in which those concerned primarily with rural land-use planning were interested in obtaining a rural-zoning enabling act in their State. The interest in procuring this piece of legislation had developed as a result of serious and conservative consideration of the land-use problems that were really becoming crucial in certain rural areas of the State. The program had been carefully appraised by all the farm leaders. There was, so far as a careful observer could note, nothing but agreement among all persons interested in agricultural welfare as to the need for this land-use adjustment device. Before the legislative branch, where the severest test could be expected, this enabling act passed with hardly a dissenting vote. It was as a bombshell exploding, therefore, that when the measure came before the other branch of the legislature, a violent opposition arose. And this opposition was able to defeat the measure. Was this opposition from farmers; from those who are ordinarily expected to be primarily concerned with rural problems? No. Was it from purely urban groups? Of course not—they already had city-zoning enabling legislation. The opposition came from a new and very important group of rural land users. It came from the State's associated tourist-cabin owners. This group opposed and killed the legislation, not because the legislation really was against their interest, but because they did not understand the bill and its intent. The importance of private, public, and commercial recreational uses and other nonfarm uses of rural lands was nowhere known and better understood than in that State. This understanding had not permeated sufficiently, however, to assure that rural planning actually encompassed these new interests in the rural areas.

Where city-country relationships have a direct bearing on rural land uses (and that probably includes some part of almost every State), agricultural planners will do well to become familiar with these problems. They will need to go even further than giving due weight to these relationships in their judgments, however much of a task that is in itself. They must actually incorporate all the interests represented into their programs. Only in this way can they hope that their programs will serve their rural community's full interests, that their community will serve its most important place in its region, and that the whole program will have an adequate chance of realization.

Land Management in South Dakota

by RAYMOND PENN and HARRY A. STEELE

THE Great Plains area is confronted with many serious land-utilization problems that must be solved if the area is to maintain its place in the national economy. Since 1930 the counties in this area have acquired large amounts of land through taking tax deeds. For example, in four counties of northwestern South Dakota there were, in June 1938, a million acres of county-owned land. Moreover, these counties could have taken tax title to an additional million acres.

Another major problem that confronts Great Plains farm and ranch operators is the obtaining of satisfactory long-term leases on range land, with rent in proportion to carrying capacity, with the land not subject to sale, and with the right to make improvements without being forced by competitive bid to pay additional rent to cover the value of those improvements.

In South Dakota, because the counties were unable to manage their lands in the interests of farmers and ranchers—due partly to State laws specifying the method of managing county land—a group of farmers and ranchers interested in making a change in public-land management met in November 1938 and appointed a State public lands committee. At the first meeting of this committee it was decided to give immediate attention to revising laws dealing with county land. After a series of meetings with representatives of the county commissioners' association, the Extension Service, experiment station, Bureau of Agricultural Economics, Agricultural Adjustment Administration, Soil Conservation Service, and other agencies, the committee drafted a law that, it was hoped, would aid the county commissioners in leasing and managing county lands in such a way as to maintain income from the land and protect the future productivity, at the same time making possible a more permanent leasing arrangement for the rancher. The act was passed by the 1939 legislature, and it was provided that the committee was to make available to the county commissioners information on how to use it. The main provisions of the act are discussed herewith.

The Designation of Land for Managed Use

In the first place, counties may designate land which they feel will remain in county ownership for a number of years. To do this the commissioners may classify the land into two classes: Class one land is that which may be leased and managed the same as in the past; class two land is that which the county commissioners feel will stay in county ownership for some time, at least until certain tax adjustments can be made. On class two land the county commissioners may establish leasing and

management practices which would result in an improvement in grass resources and water facilities, such as long-term leases not subject to competitive bid or sale, regulation of grazing, and varying lease rates. It is not intended that land classified as class two land is to be withdrawn from private ownership indefinitely. However, when counties hold title to a hundred thousand acres or more of land, all of it will not be sold in the next 5 or 10 years. That which is not sold stands to lose its most valuable resources—grass and water—for those individuals using the land cannot or will not develop the water facilities and grass for future use. It would seem a matter of good business to manage that part of county land which is not sold for a period of years in such a way as to insure development of the grass and water, making the land more valuable if and when buyers are available and can afford to buy the land.

On the other hand, if the present system of leasing and handling county lands appears satisfactory, no change need be made. The law was so written as to enable those counties which were not interested in making longer term leases, not subject to sale, to continue under virtually the same laws that had been operative since 1937.

Under the act, counties can prevent overgrazing and depletion of county-owned land. In the leasing of class two land, the law requires that the counties retain the right to regulate grazing on county-owned land and to change rates from year to year, depending on the carrying capacity of this land. This does not mean that counties must exercise these rights immediately. If, in the future, land leased under long leases and not subject to competitive bid is being abused by overgrazing, the county will have the right under the act to take steps to prevent such abuse.

The act also makes it possible to encourage improvement on county-owned lands. All county lands come under this provision. In the past a rancher leasing county lands has been reluctant to build a dam or to improve the water facilities on county property simply because he would have no title to the improvements and might have to pay more because of the improvements when the land came up for competitive lease. The result has been that few improvements have been made on county-owned land. The purpose of this section of the State law is to make it possible for county commissioners to issue permits for permanent improvements, describing the improvement and the cost. Then, if the land is leased to someone else, the subsequent renter must pay a reasonable price to the previous renter for improvements that have been made on the land.

The Blocking Up of County-Owned Land

Another provision of the act concerns the blocking up of county-owned land. County-owned land is now scattered in small tracts throughout the county. Under authority of the new law, county commissioners may

exchange land by title or lease with other private or public agencies in order to block out larger areas of county-owned land. This should make it easier to manage. Supervision and administrative costs would be reduced. Fewer problems would be encountered in setting up grazing associations, and counties would be more likely to lease all of their lands.

More equitable distribution of lease revenue also is made possible under the act. Many counties have been faced with the problems of distributing revenue from leases and of procuring funds to take tax deed. The law prescribes the two things to be done with lease revenue: First, it is possible to establish a fund from this revenue which may be used for taking tax deed and for the management of county-owned land; second, the remaining income is to be apportioned in the same manner as taxes. Necessarily, the income from lease land must be available as an offset against the declining tax base resulting from the taking of tax-deed land. The fund to be set up for taking tax deed should be in the nature of a revolving fund giving the tax units equity in that fund as the taxes are apportioned.

The procedure to be followed in the application of the law is of considerable interest. County commissioners must decide, in the first place, whether or not they wish to take advantage of the classification feature of the law or operate as they have in the past.

If the county commissioners decide to classify the county land, they should designate by resolution class two land. All of the county-owned land not so designated will be considered class one land. It appears most practicable that there should be both a description and a map of all land. Such classification is to be based on the method of sale and management, and a plan for leasing and management of class two land must be worked out and made a part of the resolution that sets up the classification. The plan of leasing and management is to include the type of lease and the methods to be used in making the lease.

Unclassified land and class one land must be leased and managed as follows: First, the land should be leased at competitive bid; second, the leases are made subject to sale; third, land not leased on lease day by competitive bid may be leased privately for the current calendar year only.

Methods of Leasing and Managing Land

The method of leasing and management of class two land may be set up in the classification resolution as follows: Responsibility of leasing and management of county lands is to be delegated to competent county officials; the county commissioners shall designate one office where all records of leasing and management of county lands are kept; the county commissioners must set up certain procedures and standards for the

individual in charge of leasing, such as method of determination of rental rate, length of leases, conservation practices, and general procedure to be used in allotting leases to various operators. The most difficult problem will, of course, be the allocation of leases. This may be done by any combination of the following methods:

The block system used in one county in the State offers a possibility, especially in times when plenty of land is available. The operator outlines the boundaries of the unit he would like to control, and has his neighbors approve his operating unit. A map of the unit with the signatures of his neighbors is approved by the county commissioners and placed on file in the auditor's office. Any county land within this block will be leased to the individual, but should the individual fail to lease any of the county land, the block is canceled.

The method of commensurability sometimes used simply means that grazing privileges are allotted to individuals who have enough feed base and winter range to carry through the winter the animal units to be grazed on the county land during the summer grazing season.

The third method is based on past use. The person using the land in the past has priority right.

The fourth method is that of size of unit. A very small unit near county land may be given priority right in county land in an effort to build up a unit of more economic size.

Forms for Improvements Permits Needed

County commissioners should make forms available for the improvement permits. On these forms should be space for the description and location of the improvement, estimate of the cost, place for county commissioners or their agents to sign, and the proper place for signatures to be made in transferring the permit in order to make it unnecessary to issue a new permit each time the lease is changed. These permits are to be recorded in the register of deed's office or in the office designated to keep all leasing and land-management records.

Legal advice should be sought on working out the forms for exchanging county land. The right to exchange county land may or may not be delegated to the official in charge of administering this land.

In preparing the management plan and the classification of county land it will be necessary to consider conditions in various communities in the county. Although county commissioners or their agents are responsible for the administration and management of county land, they undoubtedly will find several local and State organizations of valuable assistance in working out policies and adapting management plans to local conditions. County and community agricultural planning committees should have many suggestions, while such organizations as graz-

ing districts and soil conservation districts also will be of considerable assistance and in many cases will be in position to lease large amounts of county land for their members. Grazing districts may lease county land for 10 years and allocate grazing permits to their members with adequate restrictions to insure conservation and range control. Although soil conservation districts are not primarily business organizations and therefore are not in as good a position to lease land, they do have power to enact land-use regulations that will insure proper land utilization and prevent misuse of county as well as other land.

When the county commissioners have delineated lands to be managed on a long-time basis, they will be interested in improving the land, and there are several public programs of which the counties may take advantage for the development of water supplies and other improvements. Assistance in classification of county land and in preparing management plans also may be obtained from public agencies.

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Area Adjustments in England and Wales

by JAMES G. MADDOX

WHEN the Great Depression fell upon England in the beginning years of the decade, it brought boiling to the surface a whole host of problems. A few perhaps were brand new. Most of them, however, were old ones, rooted in the errors and procrastinations of the past.

The problems of maladjustment in population and resources in the declining industrial areas of England and Wales were in the latter category. They were not depression-born phenomena, but were holdovers from an era when, because it was possible to postpone action, no action was believed necessary.

Before and during the World War the counties of Durham, Cumberland, Northumberland, Glamorgan, Monmouth, Brecknock, and Pembroke shared golden years of prosperity. The gold began to tarnish shortly after the War, however, and these areas since 1921 have suffered severe and continuous depression. Hundreds of thousands of men, women, and children sank into poverty and distress, therefore, due to unemployment.

Coal mines, foundries, steel works, shipbuilding yards, stone quarries—all of them heavy industries, for there were no light industries in these areas—had been furnishing the pay rolls to hundreds of thousands of workers during the good years. Then, bit by bit, the pay rolls began to fade. A number of mines were worked out, and oil began to displace coal as fuel for ships, thus striking a double blow at the Durham and Tyneside areas and the South Wales area, where coal mining was vastly important. In other sections, mines and quarries, no longer profitable, were abandoned, and allowed to flood. Manufacturing plants were closed, as firms went bankrupt or moved to sites nearer the markets of London. Shipyards closed and did not reopen. Trade declined, and harbor facilities were permitted to depreciate. So serious did these misfortunes become, in fact, that by 1934 more than half of the working population was unemployed, and many of them had been without jobs for as long as 5 years.

Relief Rolls Only Recourse of the Stranded

To a people which long since had been crowded off the land, both by the growth of commercial farming and by that of industry, the relief rolls were the only recourse. Ills piled upon top of ill. Relief payments could not, of course, provide any permanent solution and in any case were often inadequate to provide a proper standard of living. Population declined as workers found better opportunities elsewhere. Local governments throughout these counties found it increasingly difficult to

furnish proper public services because of failing tax revenues. It was an area disaster, but it was national as well and it was plain that national action could no longer be postponed.

So it was that the British Parliament in November 1934, forced to recognize the peculiar and complex nature of the problems facing this part of the English and Welsh people, enacted a law designating these eight counties as special areas, and appointed a Commissioner for the special areas, charged with the responsibility for attempting to bring about economic recovery in the areas on a new and sounder footing. This responsibility was particularly heavy, and doubly important, because at that time more than 317,500 workers in the area were without employment and had little prospect of being employed within the foreseeable future.

Acting on this knowledge, and under authority of the Special Areas Act, the Commissioner accordingly embarked upon a threefold program: (1) To attract new light industries to the special areas through establishment of trading estates that would build new factories and lease them to tenants, as well as give financial aid to certain types of nonprofit industries; (2) to conduct an extensive program of land settlement, to aid selected workers and their families in settling in other areas, or upon small farm holdings where subsistence production would be possible; and (3) to contribute to the economic and social welfare of the special areas through a widespread program of public works construction.

"Slag heaps and dismal ruins of factories," was the impression the Commissioner carried away from his inspection of one of the areas in his first year of administration. Industrial development in the special areas had been unguided and uncontrolled in its heyday and the debris it left in its wake showed in rotting, ugly buildings, rusting machinery, and great heaps of industrial refuse that seemed for a while to block any reasonable attempts to use the sites again for other industries or purposes, and it was of little use to think, at that late date, of how these conditions could have been forestalled through control methods.

River Banks Lined With Eyesore Structures

The River Tyne, the Commissioner reported at that time, was lined with abandoned factory buildings of forbidding appearance, and much of the landscape was marred with the gaping wounds of forsaken mines and quarries. Gaunt skeletons of decaying shipyards and foundries reared against the sky as billboards of distress and suffering. He remarked that these eyesores, gloomy and dour, were not apt to impress favorably any manufacturers considering location there, and that they tended to discourage the owners still in the area.

With passage of the Special Areas Act, however, the field was cleared for a giant new action; action which the Chancellor of the Exchequer frankly told Parliament was a new and untried experiment. This act provided that the trading estates set up under it should build new fac-

tories and engage in an active movement to attract new industries. Matters were not to drift any longer, nor were the special areas to be forever looked upon as the victims of an inscrutable destiny. Industries were vital to the people of the areas—they could not live without them—and Parliament committed itself to helping the people of the special areas with their problem.

Preferred regional assistance to industry was here, for the first time, incorporated into British laws although in restricted form. Perhaps the majority of Parliament agreed with the conclusion offered by the Commissioner of the special areas when he pointed to the burgeoning growth of London as a "national menace." He then elaborated his views by asking, "Is it to the national interest that this phenomenal growth should be allowed to proceed unchecked?" He held that much of the growth of large cities like London is not due to economic factors, but is psychological, and that this part of it at least could well be directed elsewhere. The wider distribution of industry, according to the Commissioner, would tend to level out prosperity generally, and would assist agriculture through increasing its local demand for products, as well as provide greater protection against attacks from the air in time of war. All industrialists who wished to locate in Greater London, he held, should be required to state their reasons for that desire, and if the reasons were not valid, then they should be restrained from locating there.

Scope of Aid to Industries Limited

Giving assistance to new industries through loans and other means of helping to locate them in the areas was one of the prime purposes of the act of 1934, but its scope was limited at first by a prohibition against giving direct aid to private concerns doing business for profit. Restricted though it was, the act nevertheless enabled the Commissioner in 1936 to assist the Tyne Improvement Commission, through a grant-aid plan, in purchasing the Tyne dock from the London and North Eastern Railroad Co., so that deep water quays could be built near Jarrow.

At the same time, in a move to ease the burden of unemployment through immediately effective action, grants from the special areas fund were made in the first 7 months for public works projects totaling \$3,600,000. These included projects for privy conversion, sewerage, clearance of derelict industrial sites, improvements to river banks, drainage, colliery improvements, clearance of old pit mounds, improvements to reservoirs, construction of sea wall, construction of and repairs for hospitals, and improvement of water supplies. Grants in aid for recreation sites and similar projects added to this total by approximately \$88,000. Pushing forward from this beginning, grants in aid for public works projects and local construction projects given through the special areas fund had reached a total of more than \$24,020,308 by November 1936. In the next year more than \$8,890,000 in grants were added to this figure, and \$7,772,000 were added up to October 1, 1938. As part

of the works program, the special areas fund also made large contributions to housing in the areas, through slum clearance projects.

Transference of part of the excess population from the areas also was started immediately on passage of the act of 1934.

As part of the industrial program an agreement was reached with several railroad companies to give preferred treatment, other things being equal, to bids by firms in the special areas on all materials on certain projects to be undertaken. Industries in the areas further benefited from the fact that Government contracts specified preference must be given bids of firms from the "depressed areas" of the country, which included the special areas. In 1936, the Commissioner of the Special Areas reported, there also were orders totaling \$6,000,000 placed in the areas under an agreement reached between the Treasury, the main line railway companies, and the London Passenger Transport Board. A munitions factory at Bridgend, as part of the national defense program, also was authorized during the year.

New Inducements to Industries Urged

The Commissioner, however, in his 1936 report urged that new means were needed to induce industries to locate in the areas and commented on the fact that, while 213 new factories were established in London (over 40 percent of those established in that period in all Great Britain), only two new industries had been established in the special areas. State-provided inducements to new industries, he said, were the best practical means for recreating industry in the special areas, and they should not be limited to nonprivate concerns.

The system of State-provided inducements that was asked for was granted by Parliament in 1937 in an amendment to the Special Areas Act. These inducements included—

1. The relief from income taxes on profits up to 4 percent earned by limited liability companies; partnership firms to receive relative appropriate treatment.
2. The exemption from income tax on all profit not exceeding \$2,000 per annum, that normally would be calculated as liable for assessment.
3. Relief from all local taxes; local authorities to be reimbursed by the Exchequer.
4. The grant of long-term loans at a low rate of interest to procure the introduction to the special areas of technical processes new to Great Britain.

The above-named inducements with certain limitations, were enacted to operate for a term of 5 years.

Under the impetus of this plan, with the cooperation of local businessmen in the areas, numerous improvement and development programs came into being. Two new Government plants were built and put into operation, one at Merthyr Tydfil, where unemployment in 1936 was 57.7 percent, and one at Pembrey. By 1938, when the Commissioner of the

Special Areas made his annual report to Parliament, he was able to show that \$189,000,000 in industrial orders had been placed in the special areas by the service departments of the Government alone.

A giant new factory for manufacture of calcium carbide was in the offing in Wales at the close of 1938, decision of the Government being awaited on the project. During the year the Commissioner had provided, or was to provide, 16 new factories for new enterprises in the special areas, nine of which were to be in the Durham or Tyneside areas and seven in South Wales. Arrangements also had been made to provide two sites for factories in the Durham and Tyneside areas for firms to do their own building. Excluding the cost of the factories themselves, which were leased to the tenants, the amount of capital involved in these undertakings was \$3,000,000, and they were to provide jobs for 4,000 people.

Through newspaper advertising, fairs, and so forth, attention was given to attracting tourist travel to the special areas, and official encouragement given to a "trade at home" movement within the areas.

Work also was begun in clearing scores of old industrial sites, to restore the natural beauty of the country, and provide new sites for desirable industries.

Factories Built and Leased to Operators

Trading estates were established at Team Valley, Gateshead, and at Treforest, South Wales, managed on behalf of the Government by boards of business men. Under this arrangement the Government has been clearing sites and constructing factories, leasing them to any tenant who appears to have a reasonable chance of success. Similar associations were organized in Southwest Durham and in West Cumberland.

In connection with the national defense program, three Government factories were erected in the South Wales special area, together with another for manufacture of oil tanks and petrol tins. In addition, an Admiralty depot was established there, and two agency factories to manufacture bomb bodies and cartridge cases. In the northeast special area a Government munitions factory was reopened in 1937 and a private factory for manufacture of munitions was reequipped. The cost of the Government factories and agency factories was estimated at about \$58,000,000 in the special areas of England and about \$4,144,000 in those of Wales. Government contributions toward expansion of other plants totalled \$7,000,000 in 1937. In addition, armament orders totaling \$135,480,000 were placed in the special areas by the service departments. It was in this year also that an official industrial survey of South Wales was completed, as an aid to the drive for industrial recovery.

In February 1937, factory construction was started at Team Valley. The South Wales and Monmouthshire Trading Estates were also established, and an extensive program of clearing old industrial sites was started at various points around the River Tyne to remove eyesores, and

prepare the way for new factories. On the Team Valley estates, an extensive program of road building, railroad construction, pipe laying, river diversion and canalization and other activities had to be undertaken before any factories were built. So rapid was this program, however, that by September 1938, 76 factories had been completed on the estate and 19 others under way. The greater part of these were already occupied, and several had contracted to expand their plants. This estate, now giving employment to about 1,500, is expected eventually to provide jobs to about 40,000 workers

Need for Broader Economic Base Shown

During 1938 the special areas, along with the rest of Britain, suffered a slackening in the coal, iron, and steel, and shipbuilding industries after their 1937 acceleration in pace, thus pointing up more sharply the need for a broader industrial base in the areas. However, there was much activity in small new industries in addition to those at Team Valley. The West Cumberland Industrial Development Co., acting under the Special Areas Act assistance, began providing five factories to tenants with investment of \$360,000. Two other factories also were being built.

The Commissioner reported in November 1938, that, since the act of 1937 had been in operation, he had made offers of financial assistance to 60 new undertakings that have materialized. Of these, 20 were for undertakings in the Durham and Tyneside areas, 32 were for the South Wales area, and 8 were for the Cumberland area. Twenty of these plants were in production in 1938. Total capital of these concerns was about \$14,000,000, and they were expected to give employment to about 8,000 people.

Up to September 30, 1938, as part of the reconstruction program, capital assistance had been given to 151 concerns, although not all of these were newly established ones. Forty-eight of these firms were in South Wales, 88 were in Durham, and 15 in West Cumberland. The total capital involved is \$22,697,000.

At the time of the 1938 report, the Trading estates had been in operation only since 1937, and some of its measures of assistance to industry had been in effect only 16 months. In spite of this, an impressive array of new industries had been brought to the special areas. A further fact of significance is that most of the new ones are light industries, such as are principally needed to balance the industrial and employment picture, although several new heavy industries also were assisted in coming to the areas.

In the northeast area, principally at Team Valley, the following types of industries were brought in: Woodworking and veneer, motor bodies containers, electrical engineering, electrical wiring, batteries, foods and candies, clothing, handbags, buttons, light metals. In South Wales the types of industries included: electric switchgear, batteries, electrical

equipment, toys, fancy goods, paper and paper board, typewriter carbons and ribbons, roller skates, silk tissues and silk printing, paint, varnish, abrasives, leather belting, footwear, chemicals, buttons, sewing machines, biscuits, clothings, etc. In West Cumberland the new industries were textile manufacture, motor lawn mowers, leather goods, and surgical instruments.

The Commissioner of the special areas during this period continued assistance to local development councils, which are charged most directly with responsibility for success of the industrialization drive. He also aided in the printing and distribution of travel leaflets and advertising material relative to the special areas. A special advertising campaign in newspapers and quarterly magazines also was supported in this connection.

The Cumberland Development Council completed in the same year a new industrial survey of its territory, to provide economic data for prospective tenants. A survey was made of its flooded mines and abandoned properties. Assistance was given in locating 1 new factory that is now in production. Two others, now completed and ready for occupancy, were also assisted, and a fourth factory was due to be erected within a few months. Jobs were given to 150 workers at the 1 factory.

At St. Helen Auckland, 2 new factories were put into production, giving jobs to 216 persons. One other was completed, and another was about to be built at the time of the report. Still another new factory was built and put into operation at North Shields.

Treforest Estate Establishes 39 New Factories

A major undertaking, second only to that at Team Valley, is the Treforest Estate, where 39 factories and 9 other buildings had been constructed, of which 31 were in production, employing 682 people. The cost of this project was estimated at 28,000,000.

Other factories built included: Dowlais, 1 in operation employing 142 people, and another near completion; Cyfartha, 1 large new factory just opened; Ynyswen, new factory already leased to operator; Porth, agreement reached for erection of 1 factory; Llantarnam, 350 people employed at new factory; Cwmbran, 1 new factory almost ready for operation.

At Maryport, 2 factories had been completed, and leased. At Cleator an abandoned mill had been reequipped, and leased to 2 new tenants. At Millom, a leather goods factory had been completed, and at Hensingham a factory for weaving silk provided jobs to 700 persons. Assistance had been given to construction of a new timber quay at cost of \$400,000 between Hebburn and Jarrow. Two new factories, furniture and boot, were in operation at Brynmawr and Clydach.

Other new industries added as result of the Special Areas Act assistance included a new iron and steel works at Blaenavon, a huge new coal carbonization plant at Bridgend, glass works at Pontypridd, foundry at Taffs Well, a giant steel works at Jarrow, a coal-carbonization plant

at Seaham, pneumatic tools works at Gateshead, plywood factory at Tyne, and a timber works at Crook, Durham.

Young People Transferred to Other Areas

"The establishment of industries in the areas on an effective scale will take time," the Commissioner of the special areas said in his 1936 report. "Meanwhile, to fail to help the youths and younger generation of the unemployed to transfer to districts offering better opportunities would be to neglect their best interests; they must not wait idly until they are absorbed locally. The question of future increased local requirements of labor must wait to be dealt with until it becomes a practical issue."

The special areas, as the Commissioner shows, are areas of higher than average birth rate, and with normal death rate. Following close analysis of the prospects for employment in the area it was decided that the special areas have a considerable excess population in relation to opportunities, and, while it has been promoting the attraction of new industries and the creation of additional employment, the Special Areas Act has also provided machinery for transferring part of the people to employment outside the special areas. Acting through the Ministry of Labor and on authority of the Special Areas Act, the Commissioner reports that 21,620 were transferred from the areas in 1934-35, 21,713 in 1935-36, 28,190 in 1936-37, and 18,662 in 1937-38, the total being 90,185 transfers since 1934. With the growth of industrial activity in the special areas, a sharp tapering off in transfers now appears predictable. This policy, it has been shown, has made a definite contribution to the relief of unemployment in the areas.

Further to cushion the effects of unemployment in the special areas, the Special Areas Fund has encouraged an extensive plan of group holdings, whereby families are rented small homes at low cost in rural areas, to enable a program of subsistence living. Cottage homesteads also have been provided for part-time farming families whose bread-winners are 45 years or older, but who have children who may obtain employment in nearby factories. Cooperative production and consumption organizations also have been fostered through financial assistance and guidance of various types. Established under the Commissioner of the Special Areas, the Land Settlement Association and the Welsh Land Settlement Society have contributed substantially in a wide program for settling industrial workers on the land, the Land Settlement Association maintaining a system of training its applicants for a 15-month period before turning over a small holding to the settler. The shortage of available land has begun to make a serious inroad into all land settlement plans, however. Programs of reforestation and of land drainage also have been carried forward as part of a general program for rebuilding the economy of the area.



Books

VANISHING LANDS. By G. V. Jacks and R. O. Whyte. Doubleday Doran, New York City. 1939. 332+XVI pp. illustrated.

Soil has recently been discovered by people generally. It has acquired a new dignity and a respect long overdue from those it supports, the children of the children of countless generations who have, in turn, blessed it and cursed it, sweated over it and loved it, lived from it and died for it. Until this recent discovery, only a few scientists studied it—a very few, and most of these had some more immediate purpose than the will to know the long origin and complex nature of the living soil. The farmers, of course, *knew* it. They had lived with it over the centuries and passed down their knowledge to their sons, and these to their sons and their sons' sons. Theirs was a knowledge born of love and despair, and of quiet living. It was like knowledge about living—in fact, it was living—the very soil itself was absorbed in the life of the farmer.

But finally has the searchlight of science been turned upon the soil. Calmly and objectively, science has begun its examination. What is the nature of the soil? Why are there so many kinds of soil, and how did they form? Why are some good for one crop and others for another? Why do some respond to man's treatment in one way and others in a different way? Science is now struggling with these questions, but it has few answers. Little can be proved to be true, and even less can be proved to be false. There is scarcely room for more than speculation.

That all is not well with the way of the soil and man together has been known as long as man has written about his woes. Certainly it is true now. In many places, both man and soil are suffering. This suffering of the soil is dealt with most dramatically in *Vanishing Lands*. To the authors soil erosion is the great enemy of mankind: "One after another, the great empires and civilizations of the past have been swept out of existence by soil erosion." And there is promise of more to come! " * * * but the impetus to carry through a national plan was lacking until soil erosion began seriously to threaten the entire fabric of American society." Disease, war, bad rulers, and lost faiths sink into insignificance. It might seem strange that such a universal phenomenon has so long escaped attention. Even the authors themselves, in their first discussion of this subject in a Government report 2 years ago, referred with approval to a memorandum from the Royal University of

Siena, "that the state of lassitude and squalor characteristic of most of the clay lands of this and other parts of Tuscany was caused by neglect of proper control of rainwater owing to lack of population, a state of affairs caused by continual wars and disease." Now they write "The decline of the Roman Empire is a story of deforestation, soil exhaustion, and erosion." Yet no evidence is offered to support this assertion, and the reader is guided to none. No explanation is offered for the high productivity of the land of Italy today, despite its supposed destruction. Since Roman literature is so rich in agricultural writings, one cannot fail to miss citations from them to support this supposed discovery. But, this is unimportant. It probably doesn't matter if another monocause theory for the fall of the Roman Empire is added to the long list of monocause theories. Probably history can absorb this one in the same way it has the others.

To evaluate the portion of *Vanishing Lands* dealing with the technical phases of soil erosion would be a laborious task. There are three sorts of statements scattered throughout the book: (1) Those that are true or partly true, (2) those that are false or essentially false, and (3) those that may be either true or false—speculative statements that cannot be proved one way or the other. As an example of the first kind—the true statement—the authors say: "The crops which permit most damage from erosion are the clean cultivated ones, which are planted wide apart and cleaned from weed growth at regular intervals during the year." This is a statement of fact well established through observation and experiment. It does not mean, of course, nor is it implied, that soils producing clean cultivated crops erode under all instances, even where there may be considerable slope. In addition the authors point out " * * * the natural vegetation—perennial grass—is essential both for the development and maintenance of a granular soil structure." There is a good deal of evidence to justify this statement, provided that it is amended to recognize that there are some soils in the tropics and in alluvial valleys where the periodic laying of the land down to grass for maintenance of structure is unnecessary. Near the beginning of the book the authors also draw a useful distinction between normal erosion, coincident with the natural development of drainage features in the natural landscape, as well as that normal erosion which is necessary for the maintenance of soil fertility, on the one hand, and accelerated erosion, brought about through the adoption of practices not adapted to the land, on the other. Yet having drawn this distinction they proceed to forget it and confuse normal erosion with accelerated erosion throughout most of the book.

An important point is developed, perhaps not as clearly as it should have been, regarding the great contrast between the landscapes of western Europe and some of those occupied by European colonizers. These colonizers brought their old cultural habits and farming techniques with

them, only to find them unadapted to the new soil. Such conflicts have arisen many times in the world—conflicts between the old traditions and the new demands. In America, English common law, as well as English agricultural methods, were easily adapted to the northeastern part of the country having podzolic soils like those of the Old Country. But they fared poorly in the Great Plains, on the Chestnut soils with the uncertain, continental climate. Longer living on these soils will be required before the way is known. Through a little study of modern soil geography, in relation to farming techniques, the authors could have simplified their task enormously and brought into sharper focus the fundamental factors influencing the relationship between the people and the soil.

Along with statements like those just quoted, others are included for which there is considerably more evidence to the contrary. For example, they write: "It is doubtful whether any known method of economic land utilization will provide a stable granular structure in humid tropical soils or whether any economic crop or economic application of manures can replace the luxuriant wild vegetation as an adequate fertilizer and stabilizer of the land." In many places with proper management, rubber, coconuts, and other crops can be and are being produced in the tropics without deterioration of the soil. And as for sugarcane, it is an almost ideal crop to grow from the point of view of the preservation of the physical structure of the soil. In another place, appears this statement: "An exhausted soil is an unstable soil; nature has no further use for it and removes it bodily." There is an element of fact in this statement. A loss of fertility, with the consequent weakening of plant growth, exposes a soil *subject to erosion* more to the force of running water. But the most infertile soils of humid regions are those developed on smooth areas, above the flood plains, where there was too little natural erosion to remove the leached surface material and allow fresh minerals to be incorporated into the soil. Throughout the world there are large areas of such smooth, infertile soils, a large proportion of which are not subject to erosion.

As if the real erosion were not serious enough as it is, the authors add to erosion a wholly different phenomenon long known under the name of leaching, and call it "vertical erosion." Thus there is bound to be "erosion": If the water runs over the surface of the land, we will have the familiar type of erosion that they call "lateral erosion" and if it doesn't run over the surface but instead runs through the soil, we will have erosion anyway—"vertical erosion." Leaching is an old familiar process, desirable to a certain extent and undesirable if carried too far. It is a wholly different process from erosion and one concerned with the water soluble constituents of the soil.

Many of the statements in *Vanishing Lands* do not admit of a simple characterization as true or false. Probably the larger proportion of the assumptions and assertions are in the nature of speculation. Science may

find them to be wholly true or wholly false; or, more probably, partly true in some situations and false in others. The authors say, for example, "Erodibility is not an inherent property of any mature and fertile soil; it is a property induced, most commonly, by human interference." This might not be challenged if reference is made only to accelerated erosion in the undisturbed natural landscape, since all erosion in such a landscape would be normal erosion. Yet the normal erosion of different soils varies between extremely wide limits and so does the accelerated erosion of soils when first cultivated for crops. The characteristics which control the erodibility of a soil are largely, but not wholly, determined in nature by the processes of soil formation. Although there is much that man can do through management, mostly he must accommodate himself to the conditions. To say that the erodibility of a soil is not an inherent characteristic is exactly the same as saying that fertility or productivity are not inherent characteristics. It is true that one cannot define the productivity, fertility, or erodibility of a soil except in terms of some stated management practice. There is another interesting statement in this category: "Widespread floods are unusual in regions undisturbed by man." Of course, it is true that we have few historical records (one way or another) about floods in regions uninhabited by man! We know about floods in such regions only indirectly through interpretation of the geological evidence. But how could the flood plains along the great river systems like the Missouri, the Mississippi, the Ohio, the Tennessee, and the Amazon have developed? Have the floods of historic record leaped out of the old flood plain of the Mississippi? How were the great deltas and alluvial fans built up in prehistoric times?

But there is a reassuring note if we want to be reassured: "The means by which the soil can be secured are ready to hand." After describing in glowing terms the enormity of the problem and the lack of appreciation of it the authors tell us they have the answer. One of the answers, or partial answers, is terracing, either alone or combined with other practices. Now it happens that there is plenty of evidence of terracing on the part of the peoples of both modern and ancient cultures. Now if these peoples were destroyed by erosion, then certainly terracing wasn't the answer for them. Of course, if the people weren't ruined by erosion after all, but were weakened from other causes, of either external or internal origin, the terraces would have been abandoned along with the rest of their structural works. And with the abandonment of their structural works, some pretty drastic things may have happened—probably about as drastic as what would happen if Boulder Dam were suddenly blasted out of the Black Canyon. In another place the authors tell us " * * * that practically no conservation policies relative to the land were seriously advocated anywhere before the war. * * *" Following this reasoning, for the moment, soil science has done quite well in

the short space of 20 years. It has developed effective methods for the control of erosion, considering even the vast complexity of soils and of types of farming! How sure are we of these methods? Aren't soil scientists finding that under certain conditions terraces increase erosion rather than diminish it? Is there reasonably good experimental evidence that the practices proposed in *Vanishing Lands* are sound, and that they may not introduce other problems not now contemplated? The plain fact is nobody knows, and won't for a long time. We in America drained the swamps of the Lake States. We followed the best methods then known to science. Now we know that sometimes the methods were sound and many times they weren't. People are still paying for the mistakes. It takes a bold man indeed to declare that any new method in agriculture is superior to the old, before that method has been tested by science and experience. Many new methods in agriculture have been developed through the application of science, but in the process a great many proposals have been thrown out for each one that proved to be practicable.

In *Vanishing Lands* the authors deal with the economic, social, and political phases of this subject as well as with the physical techniques and scientific aspects. Here again, we find the same confusion of statements—some true, some false, and some purely speculative. Most agriculturalists can agree that "Over much of the world the countryman has lost living contact with the soil, and where he has lost contact erosion has been most severe," provided the authors will allow a substitution of "weakening of the people or soil depletion, or both" for "erosion." Some of our most exploited tenant farmers in America are on fertile lands unaffected by erosion. Again they say "A farmer tied to his land by necessity or affection keeps a better guard over the soil than the flitting tenant." The great agriculturalist, Columella, was one of the first to grasp this important fact about 2,000 years ago and there can scarcely be disagreement. But along with these two statements we find the amazing assertion, "The main economic cause of recent accelerated erosion has been the transfer of capital across regional or political boundaries and its repayment with soil fertility." Of course, we would expect capital going from the city to the country to be repaid from the rural areas. This would be true whether or not there was soil erosion. How could it be helped, whether it crossed political boundaries or not? Such transfers of "soil fertility" are going on in just as many places where there is no soil erosion as where there is. Exploitation of a people and the transfer of their suffering to the land may be brought about in a good many ways, one of which, to be sure, is through harmful or oppressive methods of extreme capitalism. Of course, overcapitalization of land during boom periods has wrecked many farmers, wherever they got it. But the loaning of capital to agricultural people, as to other people, has been necessary. How else

could we have developed our agricultural lands? It has not always been harmful to either the people or the land. Terrific price fluctuations, extreme looseness or tightness of credit, extreme taxation, bad relationships between landlord and tenant all seem to be of far greater significance.

Yet starting with this assumption about capital transfers, the authors then build up the hypothesis that a high degree of economic nationalism is essential for soil conservation. If the League of Nations had been successful, our soils would be lost. Yet they tell us that "Probably more soil was lost in the world between 1914 and 1934 than the whole of previous human history." They present not the slightest evidence for this amazing statement; in fact they have already told us that all of the previous civilizations were destroyed by erosion. Yet now they tell us that we have had even more erosion than the total of that which destroyed all of the other civilizations during the 20-year period between 1914 and 1934. It is true that there are soils eroding now that weren't eroding 30 years ago, but it is also true that there are some that were eroding 30 years ago that aren't eroding now. Although there are no data bearing upon this speculation, there is certainly no reason to believe it.

If farmers are to have the advantages of the goods and services made possible by modern science, how are they to get them except through the exchange of their products for those of the people in the city? And why is one city so much better than another from the standpoint of soil depletion? Is the "fertility" sold by the Missouri farmer to St. Louis less "gone" than that he sells to Paris? What happens to the farmer when tariffs raise the prices of the goods he buys? Does it make him farm more carefully and thus reduce erosion? The recent trends toward economic nationalism have already thrown farmers so out of balance as to threaten the financial structure of governments. A trend toward intense nationalism, with its emphasis on inefficient production and inevitable trail of wars, would have somewhat the effect upon soil depletion that a strong wind, without rain, would have on a forest fire.

One could go on this way throughout the book. It is a big book and many things and places are discussed. But it would take a book three times as big to analyze and sort out the true, the false, and the speculative. The total picture is one of panic—with scarcely time to reorganize our governments, our institutions, and our living to a single purpose, to accept the ideal expressed so directly by the authors in their opening sentence: "To gain control over the soil is the greatest achievement of which mankind is capable." Let none dare ask, to what purpose?

Yet, all this, perhaps, makes little difference. In every science there are the panic makers. Medicine has had them, chemistry has had them,

astronomy has had them—and there is likely no reason why soil science shouldn't have them. These matters will be clarified in the future gradually, as science proceeds with its researches. What is important at the present time in regard to soil is for attention to be focused upon the fundamental problem. The fundamental soil problem of the people on the land is the maintenance of secure production. Erosion, supply of plant nutrients, water control, and all are in the picture—not as ends in themselves, but to the extent that they have a bearing on the wider problem. Sometimes erosion is beneficial, frequently it is harmful. Some soils naturally low in their content of plant nutrients are very responsive to management, others are not. Questions about erosion must be raised. What is harmful erosion on the different soils, what are the fundamental causes, and how can it be controlled? Certainly it won't be necessary to tear up our governments, destroy our democracy, or even revolutionize our agriculture.

As a part of this general problem—soil erosion *is* a great problem in many parts of the world. It is a problem that touches the lives of millions of farmers and their families. The attention of the public *should* be brought to this problem because it affects the welfare of nations in many ways—but in relationship to the whole soil problem. An overestimation—an exaggeration of the peril of erosion—is just as dangerous as its neglect. The gospel of panic does not clarify but obscures the fundamental causes; it adds to the confusion rather than helping in the organization of an approach that might have some chance of success and some opportunity to benefit the people on the land.—CHARLES E. KELLOGG.

THE NEW DEAL IN ACTION, 1933-1938. By Arthur Meier Schlesinger. The Macmillan Company. 69 pp. \$0.60.

AMERICA IN MIDPASSAGE. By Charles A. and Mary R. Beard. The Macmillan Company. 977 pp. \$3.50.

The convincing ease with which an historian can interpret events long past and discover the underlying forces that caused men and nations to act as they did, cannot fail to excite the envy of any economist or sociologist who is forced to work amid the confusion of the current situation. This in turn raises the question as to whether the historian can interpret the present with equal ease and as to how well current forces can be evaluated.

As a result, these two volumes should be of special interest to economists and sociologists, for both are centered about the period from 1933 into 1938, both attempt to search out those social forces which brought the New Deal into action, and both attempt to appraise directly or indirectly its effectiveness and its contribution to our American civilization. Fur-

ther, both are by authors who have previously essayed to explain the rise of the American Nation and the form of our civilization, and both were published as supplements or continuations of the earlier work of the author or authors—the first as an additional chapter to Schlesinger's two-volume *Political and Social Growth of the United States, 1852-1933*, and the second as Volume III of the Beards' *The Rise of American Civilization*. And finally both volumes leave the reader with the impression that the New Deal was socially desirable and has been, on the whole, reasonably successful even if many of its battles still are unfinished, even if it may have cost a great deal of wasted effort, and even if the Budget still is unbalanced.

But even though both studies cover the same period and drive toward the same conclusion, the two are constructed on entirely different scales and the approaches used are entirely different. Schlesinger's pamphlet is designed as an additional chapter to a two-volume work, and it is concise, factual, and straightforward. On the other hand, the Beards' attempt covers 15 times as many pages and tends to envelop the period and the subjects dealt with, rather than to strike at the heart of each problem and to shear away useless detail.

Schlesinger argues that the New Deal seems a sharp break with the past only to the extent that Roosevelt asserted "a bold command," that the measures adopted during the special session of Congress in the summer of 1933 set the mold and form of all that has followed, and that these measures and others afterwards adopted were directed toward three ends: relief, recovery, and reform.

Schlesinger concludes, or at least indicates that it appeared to the voters, that the relief activities of the administration were costly and wasteful but that the gains were "indubitably great" since the program not only succeeded in "feeding the hungry and sustaining their morale, but, by doing so, had restored the average man's confidence in democratic methods of government." As for recovery, the remedies are more difficult to assess, but it is indicated that some of the undertakings (such as the Reconstruction Finance Corporation, the Public Works Administration, and the Agricultural Adjustment Administration) helped materially to prime the economic pump, while others (like the National Recovery Administration) possessed little or no value in this respect; and that whatever the merits of particular agencies, and however great the eventual cost to the taxpayers, the recovery effort was attended by a great and general revival of the Nation's economic health. As for reform, Schlesinger says: "The New Deal's reform undertakings probably made the deepest impression on the thoughtful voter and, because of their long-range character, will probably bulk largest in the eyes of posterity. No earlier administration had done so much to subordinate private business to the public weal." Schlesinger further observes that planning is best

exemplified in the measures for rehabilitating agriculture, for developing the Tennessee Valley, and for promoting conservation, and that a valuable precedent was thereby set from which later administrations might profit.

In general, the Beards advance much the same argument as they attempt to envelop the New Deal and its background—to explore and explain the complex economic and social environment in which it developed, to assess its effects and accomplishments in a multitude of detail, and to indicate the movements and lines of growth which are significant to our developing civilization.

The Beards begin with the "Golden Glow" that followed the World War and came to an end with the stock-market crash in the fall of 1929; and the first two chapters describing this restful interlude in the life of the American people when they left the direction of their national affairs to the "Lords of Creation," and the dissolution of this blissful state of affairs as industrial production and stock dividends failed following the stock-market crash, is a brilliantly written summary of the many articles, pamphlets, books, and congressional hearings dealing with our great stock-market prosperity and its direful aftermath. After this the Beards turn to the election of 1932 and a half-dozen chapters covering the main elements of the New Deal. These middle chapters analyze the economic and political aspects of the New Deal in considerable detail, reiterate and further supplement the background presented in the first two chapters, and foreshadow much of the social analysis with which the final chapters of the book are concerned. In closing, the Beards endeavor to assess the drift or progress of American civilization in a series of chapters dealing with the sources and forces of entertainment, mainsprings and ranges of letters, esthetic affirmations, science and the widening outlook, and last of all, frames of current social thought.

Altogether the avalanche of words, sentences, paragraphs, and chapters with which the Beards argue their case, their agrarianism, their isolationist sentiment, and their sustained satirical regard for the "Lords of Creation" are likely to leave the reader slightly confused. But if one wants to read an excellent account of the Roosevelt administration through 1938, or if one is interested in an attempt to integrate all social knowledge—to analyze and relate every element in the American scene from the writings of Willa Cather and Ernest Hemingway to the utterances of Franklin D. Roosevelt, from the work of John Singer Sargent to the work of the Committee for Industrial Organization, from the arguments of the academicians to the riots of the unemployed, from the war motif in the movies to the fight for a national farm program—then he should read *The Rise of American Civilization*, volume III. But if you only want a concise outline to refresh your memory and only have an hour or two to read, then Schlesinger's pamphlet is recommended.—ORIS V. WELLS.

RURAL MIGRATION IN THE UNITED STATES. C. E. Lively and Conrad Taeuber. *Research Monograph XIX. W. P. A. pp. 192. 1939.*

MIGRATORY COTTON PICKERS IN ARIZONA. Malcolm Brown and Orin Cassmore. *W. P. A., Division of Research. pp. 104. Washington. 1939.*

"Modern migration is primarily a phenomenon of youth." The authors of *Rural Migration in the United States*, in discussing the characteristics of migrants in selected areas, associate this fact with the launching of occupational careers and the founding of new households. Young, unmarried people can obviously pull up stakes more easily and go out to seek their fortunes, and the depression apparently was not a sufficient obstacle to stop completely their moving about. The pull of the cities is "expressed in terms of the fact that the city is a place of jobs, of wealth, and power, of adventure, and of restless activity, and endless variety." Rural young people went more often to large cities than to small cities and more young women entered the stream of migrants than young men.

This migration of rural youth, usually urbanward, has at least two important effects—it leaves a scarcity of young adults in their most productive years in the areas from which they migrate, and it represents a sizable transfer of wealth from rural areas (usually those which can least afford it) to cities in terms of the costs of rearing and educating these young people before turning them over to urban life. This is in addition to the flow of wealth to cities through inheritances. Since 1930 the flow of rural youth to cities has been reduced by some return to the land and some failure to migrate, resulting in certain areas in a piling up of these young people on farms not capable of supporting them. This constitutes a major challenge to public-relief agencies in our so-called problem areas.

The scope of this bulletin is much wider, however, than merely the migrations of rural youth. The authors give historical setting to the problems involved in mobility when they discuss rural-population movements before 1930; they describe what has happened during and since the depression; they present data on migration and rural reproduction rates, on selected socio-economic factors playing a part in migration, and on the social significance of rural migration. For certain selected areas where more intensive studies were carried on, additional material is offered in the frequency and range of moves, types of residence changes, and the characteristics of the migrants themselves.

Migration has played such an important role in the development of this country that it is valuable to give historical perspective to its present aspects. As early as the decade 1900-1910 the rural population was making a substantial contribution to the growth of cities; while the rural population of the United States as a whole increased 9.2 percent during that decade, nearly 40 percent of all counties decreased in rural population. Between 1910 and 1920, for the first time in our history, more

than one-half of the counties decreased in rural population. Changes in type of farming, the influence of the automobile, suburbanization, part-time farming, and the expansion of agriculture during the World War were already affecting rural-population trends. The loss of rural population in more than one-half of the counties of the United States was repeated in the succeeding decade. In all three decades the gains and losses had been very uneven over the country. In the decade 1920-30 there was a slightly larger average gain in rural population than in the preceding 10-year period and there was a reduction of the broad areas of more than average increase. Despite the effects of industrial development, the automobile, and electricity, however, there was a definite tendency toward a greater stability in the growth of the rural population.

The total volume of migration during any given period is far greater than is represented by figures of net migration. For example, a net migration of 6,296,000 persons from the farms of the Nation during the period 1920-30 was obtained by 13,140,000 moves to farms and 19,436,000 moves from farms, making a total of 32,576,000 moves between farms and villages, towns, and cities. If each person who was involved in these migrations had moved only once during the decade, it would mean that the number of migrants was approximately equal to the number of persons living on farms, or to one-fourth of the entire population of the United States.

The difficulty inherent in discovering the cause and effect relationship of various factors in migration is illustrated in the trend toward mechanization in some of our important commercial farming areas. The part which availability of ample cheap labor plays in retarding mechanization is quite clear, but the relationship between the rate of mechanization and the rate of migration is not so clear. Which is cause and which is effect? So it is with other factors such as quality of land, proportion of agricultural workers in the population of a given area, the prevailing level of living, per capita agricultural income, distance to cities and suburban developments, relief rates, and such subjective factors as evaluation of alternative opportunities, the potency of certain impelling motives for moving even when better opportunities are not apparent. Streams of migration move in both directions, eastward and westward, cityward and landward, and there is no one-way relationship of cause and effect between migration and the complex of factors stimulating or retarding it. The authors say, "The major conclusion that can be drawn is that simple generalizations, alleging uniform relationships between rural migration and conditions in the rural areas affected, are not possible."

There is little question that rural-urban migration, especially in times of urban prosperity, mitigates the problems of overpopulated areas to some extent, but planned or unplanned migration from rural areas in itself is not enough. If the policy of guiding or encouraging migration is adopted, suitable areas to which the migrants may go must be located.

Encouragement of reduction in birth rates in overpopulated areas is another alternative, but more important than that is the necessity for a program in which part-time or subsistence farming, a greater production of home-consumed products, the development of community industries for local consumption, and the expansion of service industries would all have a part. "In general, a combination of directed migration, reduced birth rates, and improvement of basic social and economic conditions within overpopulated areas seems to offer the soundest approach to solving the long-time problems of widespread rural destitution."

The special contribution of Migratory Cotton Pickers in Arizona is the description and documentation of the various techniques of the large cotton growers in recruiting their labor supply for the peak seasons. This procedure helps to stimulate a mass migration each year not only to Arizona but to the entire Southwest. Part of the stimulus to this migration of agricultural workers is to be found in the poverty and insecurity in the areas of the western Cotton Belt from which they come (85 percent of the 1937 Arizona migrants came from Oklahoma, Texas, Arkansas, and Missouri) and part of it is implicit in the type of industrialized agriculture which demands a heavy peak labor supply for only a short period in the year. Added to these stimuli are the advertising devices of the growers to insure an "adequate" supply of labor. This is not a new phenomenon, but, along with other methods, was used in 1918-20 to encourage the migration of thousands of Mexicans and, later, to bring in Puerto Ricans for a cheap labor supply.

The Farm Labor Service, allegedly cooperating with the Farm Placement Service of the United States Employment Service, recruits labor chiefly for Maricopa and Pinal counties and gets effective results simply by placing signs on the transcontinental highways and guiding a sufficient number of migrants out of the main stream to the growers. In 1937 want-ads placed in newspapers in Oklahoma, Texas, Arkansas, Colorado, New Mexico, Utah, and Southern California by the Farm Labor Service proved successful in recruiting a large supply of labor at little cost.

"Some of the most successful work of the Farm Labor Service is done by using the grapevine. They send an agent out to pass the word along about Arizona cotton. He will stop in all the towns along the road and talk to the people in the poolrooms, gas stations, and so on, and tell them that there is plenty of work in Arizona. In this way the rumor gets started. One person tells another and soon everybody knows about it."

The authors of this bulletin recommend improvement of working conditions, stricter observance of sanitary conditions in private camps, extension of Farm Security Administration camp facilities, control of labor-recruiting activities, more realistic guidance of workers through the United States Employment Service, and a program of public relief during the inevitable slack season when migrants are temporarily in need of assistance

in order to ameliorate the situation as long as the economy of the Southwest remains highly industrialized, demanding seasonal workers. More basic and permanent adjustments, however, can be achieved only by far-reaching social and economic changes in the areas from which the migrants come, to mitigate the effects of mechanization, drought and erosion, and crop-control measures.

A similar story, of the migratory-casual workers in New Mexico, is told by Sigurd Johansen in appendix A of the bulletin.—HELEN W. WHEELER.

LAND UTILIZATION IN NEW JERSEY: A LAND DEVELOPMENT SCHEME IN THE NEW JERSEY PINE AREA. *Alvin T. M. Lee. New Jersey Agricultural Experiment Station, New Brunswick, N. J. Pp. 50. 1939.*

A LAND PROGRAM FOR FOREST COUNTY, WISCONSIN: BASED ON AN ANALYSIS OF LAND USE PROBLEMS. *V. Webster Johnson, Sidney Henderson, and James H. Marshall. Bureau of Agricultural Economics. United States Department of Agriculture. Washington, D. C. Pp. 111. 1939.*

The fact that these two publications are reviewed together is not entirely fortuitous, although it is not intended to imply that they treat of wholly comparable areas and problems in the field of land-utilization research. Both areas were once given over to forests and today are confronted with problems of maladjusted land use, but otherwise there is little similarity between them.

The New Jersey Pine area comprises 1,647,924 acres and supports a population of 64 persons per square mile, while Forest County has within its boundaries a total of 651,496 acres and a population of about 11 persons per square mile. The pine area is a stretch of poor land located in southern New Jersey within easy driving distance of the first and third largest metropolitan areas in the United States with a total urban population of about 15,000,000. Forest County, on the other hand, is situated in the northeast corner of Wisconsin and is bordered on the north by Lake Superior, far from any large centers of population. Thus New Jersey provides an opportunity to study the exploitation of an old forest area as a suburban development in contrast with an attempt to develop agriculture in a cut-over area in northern Wisconsin.

As the foreword to "Land Utilization in New Jersey" points out, the approach to the problem in this publication is novel. "Here is no land classification," says the foreword, "no area planning." What we are given is a case study of a land-promotion scheme that got under way about 50 years ago in the building of Paisley, N. J., "The Magic City." The city was never built, although hundreds of lots were plotted and sold, streets laid out, and a few homes built on a tract of 1,400 acres that cost the promoter about \$5,000. It is estimated that the promoter grossed at least \$250,000 from the sale of lots to more than 3,000 known purchasers.

The use of land in the pine area for purely speculative purposes has been going on since the Civil War. Some 400 land-development schemes,

involving 200,000 acres and affecting at least a million individuals, have been started in the New Jersey pines. In a majority of instances studied, the reason given by the purchaser for buying has been hope of financial gain and only in a relatively few instances have the buyers attempted to live on or work the land. Hence, the evil effects of this type of development are largely confined to a monetary loss. While this may be great, it is not socially so important as the loss incurred when the purchaser attempts to make a living on infertile soil. Yet, insofar as these projects lead to the creation of isolated communities that cannot be self-supporting, the same problems in relief, increased governmental costs, and human maladjustment are created in New Jersey as are created in a purely rural area where farming is attempted on land wholly unsuited to it.

The value of Mr. Lee's study lies not so much in the novelty of its approach as it does in the contribution it makes to the sociological and economic problems involved in directing the use and exploitation of land. The author's recommendation that the State must first decide what policy it is to follow with respect to all its land places the emphasis on the need for a State-wide policy as a basis before a complete solution of a particular problem can be found. After this has been done, his more particular recommendations for State regulation and ownership of the land follow logically. They are wisely tempered with the admonition to the planners that there should not be invoked "any inflexible regulations * * * which might impede the development of other socially desirable uses of the land."

A different approach is provided in the study made of Forest County, Wis., by Johnson, Henderson, and Marshall. Originally covered with high-quality timber and for many years following its first settlement in 1850, this resource provided the principal source of livelihood for its people and supplied most of the public revenue. About all of the timber has now been cut clean with only recent provision for restocking and the anticipation that agriculture would replace forestry has failed to materialize.

What farming there has been is extremely precarious, neither the soil nor the location has been conducive to the development of a going farming community and part-time work has become increasingly scarce. Lack of income has inevitably been followed by heavy tax delinquency and the failure of local tax revenues to support public services in the area. These conditions led the county board of supervisors in 1935 to seek a solution through a study of the needed readjustment in public services leading to a planned development of the county. This publication provides an analysis of the problems of land use, taxation, and of local government in Forest County and makes a provocative contribution to a practical solution of these problems. The data thus gathered by the Bureau of Agricultural Economics in cooperation with the Wisconsin College of Agriculture and the State Planning Board form the basis of this publication and the recommendations its authors make.

In meeting those twin problems of inadequate family incomes and the fiscal distress of local government in Forest County, the authors reach the conclusion that forestry provides the best use for its lands and that agriculture and recreation are to be considered only as supplementary. The various areas within the county are classified as to what appears to be their best future use as well as the type of public program that is most likely to sustain this use.

The authors point out that while zoning has been in effect in Forest County since 1934 and can prevent future settlement in the area it cannot undo damage already done. A program of resettlement in line with that now being conducted by the Department of Agriculture, which is buying out 131 families in the area, is recommended. As far as the publicly owned land is concerned, it is suggested that the Forest Service is probably in the best position to take over most of the cut-over land. Land outside national forest areas, coming into possession of the county through tax delinquency, might best be entered under the Wisconsin forest-crop law.

Changes of such major significance in land use must inevitably entail comparable shifts in governmental organization. Consolidation of units rather than reorganization is considered to hold greater promise of economy and efficiency. Because of its application to cut-over areas in the Lake States section and wherever comparable problems are to be found, this detailed study of Forest County should serve a general usefulness to which the boundaries of Forest County are not the limit. The late Justice Holmes saw the States of our Union as the proving grounds of democracy. In dealing with problems of land utilization, the county occupies much the same place that the jurist assigned to the State.—E. HJALMAR BJÖRNSON.

LAND USE ADJUSTMENT IN THE SPRING CREEK AREA—CAMPBELL COUNTY, WYOMING. R. L. Sparlock and S. M. Lingo. *Soil Conservation Service Publication*. pp. 15. Washington. 1939.

The unit described in this publication covers 100,000 acres of open range land in north-central Wyoming. In 1934, when this Federal-aid program was conceived by the Agricultural Adjustment Administration, the area consisted of 120 private tracts and was operated by 54 residents. Land use was out of balance because many families were attempting dry farming and because the average size holding (less than 800 acres) was too small for an economic operation. Shortly before the project was started 15 families had moved out, indicating that an adjustment was already taking place. This project then must be regarded, largely, as a speeding-up process.

Through the A. A. A., R. A., F. S. A., B. A. E., and now S. C. S., with P. W. A. aid, about 40 percent of the unit area has been acquired at a cost of \$3 an acre. Modest developments to facilitate good range management have been installed at an added cost of 33 cents an acre for

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the area served. The resident family population has been cut by more than half, to 25 operators; 22 of these formed the Spring Valley Co-operative Grazing Association in November 1936. The Soil Conservation Service now leases public lands to this association at rates based on prevailing livestock prices, and the association in turn grants permits to its members that stipulate use practices and number of head of stock to be grazed.

Presumably, the 22 grazing association members, having access to units averaging 4,760 acres each, are now in an admirable position to live well and with security. The allocation of operating units, however, is not uniform. Eleven are apparently close to average. Three have some 9,000 acres allocated to each. Five others appear to have a relatively small acreage, and 6 are unaccounted for in one of the tables from which these details were taken. The implication that 11 operators even now may not have enough acreage to support an economic set-up may be significant.

Since 1934, 27 families have been bought out and moved (assuming they all were owners). Thirteen of these have located other farms; eight of them in other States. Three others have taken up nonagricultural work, and another group of three became hired hands on nearby farms. Two elderly families moved in with relatives, one foreign family left the United States, and one man died shortly after selling out. The remaining four could not be located. Farm Security Administration is reported to have helped "a few" of these families. Let us say that, by and large, the families that have left the area perhaps are as well (or poorly) situated as they were before. Those who were fortunate enough to remain are certainly better off.

Of course this adjustment, affecting only 22 families, represents a small part of the entire problem. If we considered the entire problem to be, say, 2,000,000 or 3,000,000 disadvantaged farmers, then we have a long way yet to go. What about the cost? The expenditures of \$110,000 for land, \$35,000 for developments (probably excluding \$32,000 for labor) and a sum for project supervision and maintenance, do not seem large when charged against 100,000 acres of land. Charged against 22 families, however, the total investment seems high—about \$15,000 to \$20,000 for each family. Over a long period the Federal Government can look forward to some return from leasing arrangements, but it is doubtful whether the entire cost ever will be liquidated—certainly not with interest.

Apparently the Soil Conservation Service and its predecessors have done a presentable job on the Spring Creek area. It should serve as a worthwhile experiment. Presumably the unit also is designed to serve as a demonstration of proper land utilization in the Great Plains region, but I wonder if it is entirely practicable? Could a group of 20 or 25 families, in a similar area, undertake independently the investment incurred here by the Federal Government, and expect to pay out? Would the Recon-

struction Finance Corporation, a local bank, or some other credit agency make a loan that represented an obligation of \$15,000 to \$20,000 per family? If not, then my argument is that future adjustments of this kind should be modified. The object of the program would be that of effecting adjustments that can be applied universally with a minimum of public aid. If in problem areas of this kind certain forms of Federal subsidy are needed, that feature should be shown separately in the plan.

The introduction to this report states that the large relief load is one factor that makes improvements in land use imperative. But the question is: Has the land utilization program (in most project areas) relieved this heavy relief load; or has it tended to aggravate it? This question, this element of doubt, indicates to me a real fallacy in the land-use adjustment program. To recognize fully this weakness and to remedy it would certainly complicate the program and perhaps slow it up. But until the human problem is taken care of, I wonder if new maladjustments will not counteract all of the Department's noble effort that is aimed at proper land use and farm security?—LYALL E. PETERSON.

✓ *For your attention*

SAND-DUNE RECLAMATION IN THE SOUTHERN GREAT PLAINS. *C. J. Whitfield and John A. Perrin. United States Department of Agriculture Farmers' Bulletin 1825. August 1939.*

A striking manifestation of wind action in certain areas of the Great Plains is the formation of sand dunes. They are a recent development, built up by the wind after surface cover had been destroyed by one or many factors, and are valueless in their present condition.

In Dallam County, Tex., 2,000 acres of sand-dune land were used for studying and devising methods for stabilizing them and making them eventually useful for grazing and cultivation. This bulletin reports briefly on the results of the studies, and concludes:

"Proper land use is essential if these areas are to be kept under control and cease to be a menace to surrounding land. It is much easier to prevent sand dunes from developing than it is to control them after they have developed. The better sandy areas, if farmed so as to prevent soil drifts, are entirely capable of producing good crops of grain sorghums and might well be used for this purpose. The more critical sites should be returned to grass. After they have been completely stabilized with a good grass cover, they can be used for controlled grazing."

THE STRUCTURE OF THE AMERICAN ECONOMY—PART I: BASIC CHARACTERISTICS. *A report prepared by the Industrial Section, National Resources Committee, under the direction of Gardiner C. Means. Superintendent of Documents, \$1.00. June 1939.*

This is an attempt to show the interrelation of economic forces which determine the use of our natural resources and to indicate some of the problems which must be solved if we are to have reasonable use of our resources and full employment.

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Ten chapters are grouped under the following major headings: The Essentials to Economic Activity—the structure of wants and resources; The Process of Economic Activity—the geographic, functional, and financial structure of production; and The Organization of Economic Activity—the organizational, price, and control structure.

SUSTAINED YIELD AND TAXES. *T. H. Crawshaw and A. B. Rechnagel. Journal of Forestry.* 37 (10) 791. Washington, D. C. October 1939.

The costs and returns for two typical tracts of timber in the Adirondack Mountains of New York are outlined and views on taxation policy in relation to permanent forest practice are explained in an effort to answer the question, "Can sustained yield solve the tax problem?"

THE FOREST—SWEDEN'S GREATEST NATURAL ASSET. *Torsten Hernod. Supplement to Svenska Handelsbanken's Index. Ivar Haeggströms Boktryckeri, A. B., Stockholm.* 1939.

An analysis of the importance of the forest in Sweden's economic life and development is given, with the findings of the National Forest Survey, 1923-29, and the possibilities for further development of the industry and the resources.

PENNSYLVANIA PLANNING. 5 (1) May-June 1939. *Pennsylvania State Planning Board, Harrisburg.*

This issue of *Pennsylvania Planning* is a classified directory for use in Pennsylvania planning activities. It lists all agencies, public and private, engaged in activities dealing with planning factors, resources, methods, processes, practices, levels, and agencies from which general information may be secured. A bibliography of directories available to workers is appended. The Commission hopes that such a directory may be issued periodically.

EDUCATION IN THE FORTY-EIGHT STATES. *Smith and Wright. Staff Study No. 1, Advisory Committee on Education. Government Printing Office.*

The report, one of several studies prepared by the committee's research staff, considers public elementary education, secondary education, the junior college, problems of the modern curriculum, health education, rural education, education for the Negro, handicapped children, private education, and higher and adult education. The authors draw several conclusions, among them one that American educational ideals do not find effective application upon either a State or a national basis, but rather in local, county, city, township, and school district spheres. As a function of government, public education should be organized and administered so as to render maximum benefit to the supporting governmental entity.

They recommend that the school district or administrative unit be large enough to permit economical organization, effective supervision, and a broad tax base; the board of education should be broadly representative of the entire community; instruction should be intelligently supervised; in rural areas the school system should be as efficiently organized and supported as in urban areas and, where feasible, school-attendance areas should follow community lines.

PRESENT DAY LAND UTILIZATION PROBLEMS. *John W. Spencer. Journal of Forestry.* 37 (10) 772. Washington, D. C. October 1939.

Public agencies administering public lands face many problems, Mr. Spencer asserts. Not the least important of these arises from the mismanagement of private lands within or adjacent to publicly owned areas. To remedy the situation, he writes, it will be necessary to revise the existing tax structure, regulate the use of private lands, expect more efficient land management, or for the public to acquire the

lands. Each remedial measure has some possibilities; in order to solve the problem, all four must become effective.

THE CUTOVER REGION OF WISCONSIN, A REPORT OF CONDITIONS AND RECOMMENDATIONS FOR REHABILITATION. *Bulletin 7, Wisconsin State Planning Board. Madison, Wis. January 1939.*

This report supplements the report of the Northern Lakes States Regional committee on the problems of the cut-over area of the northern Lake States, in that it presents the situation in Wisconsin alone, and sets forth recommendations for rehabilitating the 26 counties selected for study.

The report makes it clear that the economic situation of the cut-over region of the northern Lake States is less satisfactory than that of other portions of these States largely because of insufficient good cropland per farm. Rehabilitation measures would involve primarily the relocation of undesirably placed settlers and the restoration of forests. The stabilization of the property tax base by removing chronically tax-delinquent land, provision of forest work during restoration, development of recreation resources, and the development of new industries are advocated.

The means proposed, it is explained, are neither new nor untried. They have been applied successfully although on a small scale. The report proposes that rehabilitation measures "be increased to the point where they will be reasonably adequate for substantial progress in improvement, and that they be prosecuted with a definite objective."

JOURNAL OF FORESTRY. *Proceedings (of the Summer Meeting at Milwaukee, Wisconsin, June 1939), September 1939.*

(1) *Recreational Use of the Forest in the Rehabilitation of Cut-over Area of the Lake States. R. E. Bassett.*

Forest recreation plays an important part in local economics, and influences social conditions and standards of living in the communities in and adjacent to forests, the author says. After analyzing the forest recreation industry in the Lake States cut-over area and pointing out to what extent residents have taken advantage of their opportunities, Mr Bassett concludes: "The recreation industry alone is not a panacea for all ills, but it can be said to be the immediate lifesaver. In the final analysis, the way out for the cut-over area of the Lake States seems to be through the rearrangement of its pattern of settlement, making the most of its possibilities for agriculture and the restoration of the forests which were the original great resources, while taking full advantage of the immediate economical and social opportunities offered by recreation and its related industries."

(2) *The Human Side of Land Use. Raphael Zon.*

The writer discusses the cut-over region of the Lake States as a serious "problem area" and says that reversion of cut-over land into Federal and other public ownership is a movement that must react ultimately to the benefit of the people of the region, although tracts will not benefit greatly the present generation unless they are developed and utilized immediately.

Large-scale timber growing is recommended as a means of providing full-time work and of helping settlers supplement their incomes. The development of small industries to utilize raw materials still available in the region is mentioned as one means of making the most of the possibilities in the region.

STATE LEGISLATION ON PLANNING, ZONING, AND PLATTING. *National Resources Planning Board Circular XII (revised). Washington, D. C. September 1939.*

A digest of the major provisions of laws, listed by States, relative to planning, zoning, and platting.

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Washington, D.C.

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Commissioner of the
General Land Office
for the year ending
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